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AUTHOR Fagan, Edward R.; And Others
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ABSTRACT

A preliminary report on changes in Pennsylvania State University's College of Education program for secondary teachers is given through essays written by faculty members. Two papers on theoretical models explore the basis for implementing changes in teacher education programs. An analysis of five stages in the development of novice teachers is presented. The changes initiated in the university's teacher education programs are outlined in the two subsequent papers. The first paper gives the conceptual basis and the curriculum design for the secondary education teacher preparation programs and lists general competencies and course activities. The second describes the purposes, procedures, and evaluation methods of the sophomore, junior, and senior year field experience programs. Program evaluation is the subject of the last two papers. An evaluation of the field experience program is reported in one paper, which concludes with recommendations for future practice. The last paper is concerned with internal evaluation of the reformulated secondary education program, and provides a description of the evaluation design and data collection methods. An epilogue briefly discusses future developments, such as changing from the term to the semester system in 1983 and the use of computers in assessing prospective teachers. (FG)

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THE COLLEGE OF EDUCATION
THE PENNSYLVANIA STATE UNIVERSITY
DIVISION OF CURRICULUM AND INSTRUCTION

MONOGRAPH I

SECONDARY TEACHER EDUCATION
A MODEL FOR THE EIGHTIES

BY

THE SECONDARY PROGRAM
COMMITTEE



MAY 1981

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To the Pennsylvania Department of Education (PDE) we also acknowledge our debt. It, too, faced with public criticism and reduced funds, nevertheless provided moral and fiscal support for this experimental design to improve program components of secondary teacher education.

Finally, we acknowledge our debt to our students who broke new pedagogical trails, tolerated our mistakes, and performed exceptionally well when their new-minted competencies were tested in Commonwealth classrooms. Their enthusiastic endorsement of our program augurs well for the coming generations of secondary teachers.

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Introduction

Edward R. Fagan

Twenty-four years ago Woodring (1957) listed four ways teacher education might be reformed. The third of those four ways recommended that "universities. . . devise new programs which represent the best thinking of both academic and professional faculties" (p. 24). Parts of the new program which follow fulfill that "best-thinking" criteria. Other parts of the new program include "pedagogical reforms" recommended by Smith (1980); that is, they provide new viewpoints about how parts of professional programs fit together.

Using Woodring's third suggestion for reform, the new secondary program tests all prospective teachers' basic skills in computation, reading, speaking, and writing through standardized and criterion-referenced tests. Prospective teachers who fail to achieve appropriate admission scores on these tests have the option of attending a clinic (computation, reading, speaking, writing) until they can achieve the appropriate score or of seeking counseling for admission to some other program or college. To some extent these basic competencies are those identified by academic faculties which, in the mid-sixties, were strongly represented on University Teacher Certification Committees (UTCC). These committees, discipline oriented, established academic content for prospective secondary teachers so that regardless of the prospective teacher's college of matriculation (Arts and Architecture, Education, Liberal Arts, Science), the teacher followed an identical program for certification. To review prospective teachers' academic

competencies, the basic skills tests were devised, and clinics in appropriate academic subjects were provided for those interested and willing to strive for an acceptable score.

Picking up on the Smith suggestion for pedagogical reforms, it is important to note that Penn State's new program is somewhat unique among Colleges of Education because it has a high degree of control over its program components. From shared control of general education and specialty components through complete control of professional components, competencies for the new secondary program are directed by professionals. Such direction, as Smith (1980) notes, is an exception to national control patterns for teacher education and did not come easily. Some of the forces shaping these changes in American teacher education need to be reviewed, briefly, so that the Penn State program can be judged within that framework. Arbitrarily, events between Woodring's "new directions" (1957) and Smith's "reforms" (1980) tend to provide such a perspective.

Between 1957 and 1972 teacher education programs flourished. The post World War II babies moved into the junior/senior high schools, and federal funds helped colleges and universities to develop and disseminate programs for educating preservice and inservice teachers of "disadvantaged" youth as well as teachers of alphabetized programs such as Biological Sciences Curriculum Studies (BSCS), Physical Science Study Committee (PSSC), School Mathematics Study Group (MSG), and others. Contents of the MSG program were sometimes referred to as the "new" math which was popularly yoked to the "new" English--a reference

to the uses of prescriptive, descriptive, and transformational grammars--all part of innovative educational programs nurtured by funds from the Great Society.

Even as this federal support for education was peaking, forces for its withdrawal were at work: disillusionment with the "system" as epitomized by the Viet-Nam war, distrust of the "establishment" as fostering "materialistic" values, concern for students' "poor" performances on Scholastic Aptitude Tests (SAT's) and alarm at the oversupply of teachers who were allegedly "incompetent" to teach "basics." By the mid-seventies these forces and others had combined to curtail most teacher education programs and, in some cases, to eliminate them entirely from some institutions of higher education.

Survival for current teacher education programs depends, at least in part, on innovation and accountability. Legislators, reflecting public opinion, refuse to support teacher education programs which do the same things in the same way to produce an oversupply of teachers; hence, the need for innovation. Similarly, educators have to compete for their share of the inflation-eroded tax dollar which requires clear justification for program funding; hence, the need for accountability.

Both innovation and accountability are foundations for contemporary educational programs from kindergarten through graduate school. These foundations also provide both process and product for teacher education by specifying verifiable program goals and techniques for measuring whether or not those goals have been met. Since these goals (or objectives) are met by some physical, mental, or emotional act (behavior), they are usually called behavioral objectives--that is, the student or

teacher writes, describes, identifies, performs--in short, behaves in some given way to meet the goals or objectives. Stating goals or objectives in this way was considered to be an innovative feature of contemporary education, although Tyler as cited in Hawkes (1965, p. 195-199) long ago suggested the technique. More important, the behavioral-objective approach to program development provided a means for any observer to decide whether the goal or objective had been reached and how well. Evidence of teaching/learning through behavioral objectives provided more accountability than was the case with so-called general objectives. In English, for example, a teacher's general objective might be, "To have students appreciate a short story." What appreciate means, and how it is measured in that context, is unclear. The teacher's general objective in behavioral terms might be changed to read, "To have students list six characteristics of the short story." The observable list, depending upon its completeness, implies something about how much the student learned and/or how much the teacher taught; thus, the accountability dimension of the teaching/learning situation is fulfilled. One could validly argue, however, that appreciate does not necessarily mean the ability to list six short-story characteristics; nevertheless, the evidence generated by behavioral objectives gives taxpayers and their representatives a yardstick for judging the worth of their fiscal investment and has led to demands for competency-based or performance-based educational programs.

Given the behavioral-objective technique with its concrete evidence for judging the quantity and quality of learning/teaching, it was not long before many states insisted that all educational programs be

competency or performance based. What the states meant by that fiat was that program goals at all educational levels should be described in such a way that anyone could judge whether or not the goals were being met. In teacher education programs, for example, prospective teachers' ability to know and apply professional skills might be listed in behavioral-objective form as follows:

- The prospective teacher will be able to describe methods for instructing students with low academic achievement levels by listing them appropriately on a lesson plan
- The prospective teacher will demonstrate techniques for maintaining discipline in a seventh grade classroom with flexible furniture by effectively using the theories of small group dynamics
- The prospective teacher will display his/her mastery of basic communication skills (reading, writing, speaking, computing) by preparing observation reports which are error-free and accurate descriptions of students' classroom activities

Prospective teachers who meet the above-listed goals (and many more) can arbitrarily be said to have demonstrated some competence by their performance of the assigned tasks. Out of such contexts have come programs called Competency-based Teacher Education (CBTE) and Performance-based Teacher Education (PBTE). Goals for CBTE programs (to use the more popular of the two designations) are much more complex than the above-listed examples and, in some cases, competency is defined as fulfilling an arbitrary percentage (say, 80

percent) of the designated competencies. The competencies themselves are frequently drawn from tasks which range from simple (memorize) to complex (analyze) levels of academic/emotional, or physical behaviors (Bloom, 1956, p. 202-206). Competencies are usually (but not necessarily) listed at minimal levels; so the degree of success for meeting a competency can be further specified by increasingly difficult details. In fact, some competency programs establish "mastery" levels, that is, where all specified details at the highest level must be fully met.

The Pennsylvania Department of Education (PDE) has been drafting, testing, and refining what Mauer (1973) and others call generic competencies. Generic, as PDE defines it, means competencies that all teachers, regardless of subject matter or grade level, should attain. Besides generic competencies, special competencies for each subject (English, mathematics, sciences, etc.) are also being prepared. Representatives from many groups (classroom teachers, administrators, college teachers, students) help to draft, test and revise these special competencies.

The College of Education at The Pennsylvania State University is drafting, testing and revising many of the PDE-identified competencies in an experimental secondary teacher education program. Details of the Division's efforts are listed in the papers which follow but, for now, it may help to know that the Secondary Program Committee saw the new program as one consisting of interlocking phases where prospective teachers' knowledge, skills, and attitudes broaden and deepen with each program phase from their freshman to their senior year.

Finally, what follows should be considered a preliminary report based on the fact that the first group of students to complete the phased program began their student teaching Winter Term, 1980-81. By the end of the Summer Term, 1981 enough data will have been processed to affirm or deny the effectiveness of the new program.

Members of the Secondary Committee

Mary Dupuis	Robert Neuhard
Victor Dupuis	Jim Nolan
Edward Fagan	Jack Searles
Carol Fischel	Ed Short
H. S. Fowler	Sandy Snyder
Lee Goldsberry	Kathy Spicher
Ralph Heimer	Cecil Trueblood
Jim Levin	Fred Wood
Jim Myers	

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THEORETICAL
MODELS

Toward The Development of a Coherent

Program for Teacher Education

Ralph T. Heimer

I. Prologue

It would appear that the American public is developing an increasing disaffection with our schools. This phenomenon of displeasure is being manifested in many ways, not the least of which are the "back to basics" movement and the present trend toward expansion of private schooling.

A multitude of arguments have been cited to explain the apparent erosion of public confidence in the educational efforts being put forward by the schools, and teachers and teacher education institutions have not escaped this net of critique. The recent advent of the so-called competency-based teacher education movement is at least partially grounded in this criticism; indeed, just as attempts have been made to ensure that every student who graduates from high school has acquired certain minimal competencies, so are attempts being made to assess teacher competence. In the main, these efforts are predicated on the idea that Tractenberg (1979) among others has stated, namely that:

You can't have effective schools and consistently strong pupil achievement without effective instruction, and that means effective, competent teachers.

In the following the same idea, Seeley (1979) has contended that:

Parents and public will demand-and-get better pupil performances. The question is not whether there will be more emphasis on teacher account-

ability in the years to come. The important question is how the issue will be handled (p. 249).

There currently is a widespread and growing belief that there is, perhaps, no aspect of the educational enterprise more in need of reconceptualization and reconstitution than our teacher education programs. In all honesty, however, one must wonder if a true reform of pedagogical education has any realistic possibility of occurring. Most likely, B. O. Smith (1980a) is correct in stating:

Let's face it: Colleges of Pedagogy will in all probability never overhaul their programs if each college is to do it alone. There are too many hurdles, too much disparity among institutions, too much institutional jealousy, too much divisiveness and lethargy among faculties, too much fear, and too much ineptness in leadership. It is likely, of course, that one or two institutions will blaze a new path. But will others follow? Well, maybe. We don't know until some college really does it. It is more probable, however, that only forces broader and more powerful than those of a single college can ever break through these barriers and restraints to bring about a new day in pedagogical education (front cover).

In any event, the purpose of this brief essay is to explore some of the major issues that must be considered in seeking a reform in teacher education, and to propose some ideas for how to improve upon the

architecture and delivery of improved forms of pedagogical training.

II. The Issue of Professionalism

Teachers: Professionals or Not?

Is it justifiable to consider teaching as a profession? The answer to this question is extremely important, for it has direct implications for the design and operation of schools of pedagogy. Surely the structure and components of educational programs for the professions should be different from those for the trades and technical areas. In order to understand the nature of the differences that are required and why, one must seek out an adequate interpretation of the meaning of the terms profession and professional.

The Concept of a Profession

Lottes, Vanderhoof, et al. (1973), have pointed out that, unlike the trades and technical areas, every field distinguished by the label profession, where that label is used in a significant sense, is founded upon three interrelated bases: a pragmatic base, a knowledge base, and a value base.

Societies have come to recognize the fact that it is sometimes possible for a group to provide certain services that are of benefit to the members of that society, but which the layman usually is not able to perform for himself. These unique services, expected and supported by members of the society--and, which members of the specialized group (i.e., professionals) are willing and able to perform--

constitute the pragmatic base of the profession.

Members of the profession are able to perform these needed services because they have acquired certain theoretical and practical knowledge which is relevant to their aims and functions. This specialized body of knowledge is called the knowledge base. The knowledge base is represented in the form of interrelated sets of statements of various kinds. The statement sets include definitions, principles, hypotheses, theories, evaluative methods, organizational patterns, strategies, exemplars, and so forth.

Certain values and ethical standards are needed to guide the way in which a professional goes about performing his services. Statements which set forth the fundamental professional values and ethical code represent the value base of a profession.

Typically every member of a profession is expected to perform his services in a manner that is consistent with the pragmatic, knowledge, and value bases to which there is common subscription.

In the case of teaching, then, the knowledge base for the profession--if teaching is to be so-classified--would constitute the theoretical foundation upon which teaching actions are predicated. The pragmatic base, on the other hand, would be comprised by the actual, unique services provided by members of teaching profession; to be more precise, teachers engage in actions designed to help students achieve educational aims that are valued by the society. Such actions, of course, should be chosen so as to be in concert with the relevant principles found in the knowledge base. And, finally, the value base of the profession would be constituted by statements which delineate its ethical code and values. This base is intended to guarantee the quality of professional service

that is rendered, and also to protect the rights and interests of the learner.

In light of the foregoing perspectives, it seems evident that teaching as an endeavor ought to have the status of a profession--in spite of the fact that its present foundations probably are not sufficiently developed or properly articulated. These matters, of course, fall within the province of schools of pedagogy, and herein we find another whole class of stumbling blocks to consider.

Schools of Pedagogy: Are They Professional?

B. Othanel Smith (1980b) has stated the following set of conditions for a school of pedagogy to be classified as being professional (Chapter 2, p. 11):

- A school is professional if its
- sole purpose is to train personnel for a profession;
- program focuses on the development of practical knowledge and skills;
- program is designed without interference by other departments and schools;
- program is influenced by professional organizations and public criticism.

Smith subsequently demonstrates that while schools of pedagogy measure up to these criteria in varying degrees; one is hard-pressed to find a school that comes even close to fulfilling all of them.

III. Design Requirements for An Adequate Teacher Education Program

Necessary Components

The position adopted here is that the Lottes/Vanderhoof concept of a professional not only is sound, but it also serves to define the major classes of responsibilities of teacher education institutions in the training of professional educators. Clearly, there are three principal areas of concern:

- 1) teachers must learn the conceptual foundations of teaching, the knowledge base of the profession;
- 2) teachers must learn how to translate the theoretical foundations of the profession into procedures for classroom action and be able to implement them; and
- 3) teachers must be cognizant of the axiological, or value, bases upon which the profession rests, and be able to engage in theory and practice activities which are in harmony with them.

Generally speaking, therefore, there seem to be three distinct, but interrelated areas of concern in designing teacher education programs, one corresponding to each base of the profession.

Relationships Among the Components

The foregoing perspectives provide a framework for conceptualizing the role and purpose of field experiences in teacher education programs. Obviously, field experiences should constitute the means by which the

intended pragmatic goals of the profession are developed and honed. This view suggests the necessity for the highest forms of articulation between the conceptual and axiological bases of the profession on one hand, and their classroom-practice analogues on the other.

As obvious as the above position statement seems to be, an examination of our actions as teacher educators would suggest that we think otherwise. Indeed, the typical involvement of students in field settings appears to be premised on the virtue of experience per se--without any serious regard for formal educational theory. What we see all too frequently in teacher education is a pragmatic paradigm that is akin to the apprenticeship model that is employed in many non-professional fields such as the trades.

If it is assumed that the conceptual and pragmatic foundations of the teaching profession are generally hierarchical in nature, then it would seem to be necessary to design teacher education programs so as to permit the conceptual and pragmatic systems to be interactive and allow for an orderly, programmatic development of the desired competencies for first-level certification. Furthermore, the value and ethical components of the profession must be melded with its theory and practice.

IV. Epilogue

Viewpoints expressed in this paper are that the teacher education enterprise is in serious need of reconstruction; that any attempt to improve teacher education should take into account the idea that teaching ought to be a professional endeavor; and, finally, that the

Lottes/Vanderhoof conceptualization of a profession constitutes a comprehensive, ideal framework for understanding the training requirements that are involved and how they are interrelated.

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TEACHER EDUCATION AS A DEVELOPMENTAL PROCESS

Mary M. Dupuis and Cecil R. Trueblood

Teachers teach holistically. That is, teachers function in their professional role as total personalities. Although teacher preparation programs may divide the teaching act and the teaching role into convenient pieces called courses in order to fit university scheduling arrangements, the final product of any program is a single entity, a teacher who synthesizes knowledge, attitude and skills into an effective whole. The philosophical base of a teacher education program should recognize the synergistic nature of the teaching process. Hence, teacher education programs should be organized around seminal threads or strands that are the central features of the program.

Teachers are, in this respect, not different from other professionals. All professionals possess cognitive, affective and skill features which are interactive and unified. Professionals must use all three parts of themselves as they perform their various roles, including the choice of career. People who choose to become teachers do so because the profession's demands in knowledge, attitude and skill seem to match their own interests and capabilities. The process of selecting a career and the stages of career decision-making which prospective teachers must go through are appropriate concerns for teacher education programs.

The strands of the program, those integral pieces which can be identified within the whole, are essentially involved in the gradual growth of the teacher. These strands are introduced at the earliest stages, in professional development. Consider, as an example, the

strand related to teachers' interaction with students, the teacher as the one who helps develop positive attitudes toward self and others. The principles of psychology which define attitudes and suggest that positive attitudes are important are introduced early in a prospective teacher's education program. At about the same time, prospective teachers spend some time in schools observing, among other things, what impact a teacher's behavior has on student attitudes and response patterns. Through careful professional supervision the supervisor helps the prospective teacher see the relationship between the psychological principles and these real-world experiences.

At a later stage, the prospective teachers' skills are expanded and refined. Ways of looking systematically at teacher-student interaction may be introduced--the Withall (1968), Flanders (1965), and Ribble (1973) scales, for example. Knowledge of such an observation and assessment process can be applied in evaluating the prospective teachers' efforts at teaching, in simulated or field-based activities. As a result, their observations of practicing teachers take on a sharper focus, leading to more fruitful discussions between supervisors, teachers and prospective teachers: What goal did you have in the lesson we observed? Why was that teaching strategy the right one for this class? How did your behavior affect the students you were teaching? What attitudes are being encouraged by such teaching behavior?

When the prospective teacher becomes a practicing teacher, such observation of classroom interaction is a valuable tool in confirming positive teaching behaviors and encouraging change in less effective ones. The process of developing positive interaction between teachers and students continues to move to a still higher level.

Three Components in Teacher Preparation Programs

Research in career development indicates that professionals pass through a five-stage, sequential pattern of development. Tiedeman (1961) and others have validated a sequence of stages in the process of career decision-making. The goal of a teacher education program is to develop a practicing professional who is not only capable of teaching but also committed to a professional career. Thus, the program must aim to provide opportunities to gain the knowledge base, to develop the skills, and to develop appropriate attitudes and professional commitment.

In the preparation of secondary teachers, these three components can be further specified. The knowledge base of a secondary teacher has three major elements: (1) knowledge of the subject area (English, social studies, science, math); (2) knowledge of generic professional processes and information); (3) knowledge of the specific professional methods and processes which are unique to the particular subject area.

The skills component for secondary teachers includes the process of teaching the content of a discipline. These skills use the knowledge base, but move further to put it into appropriate action. Whereas knowledge of lesson planning is valuable, it must be put into action in the demonstration of skill in actually planning and implementing a lesson. Knowledge about group interaction must be followed by skill in developing positive interaction between students. The knowledge base is prerequisite to the development of skills.

The attitude component is equally important but more difficult to describe and develop. Positive attitudes toward the value of education,

the worth of each student, the importance of helping others, are included in the attitudes necessary for good teaching. Also included is a serious and conscious commitment to the teaching profession and the responsibilities which come with membership in the profession.

The major purpose of this paper is to describe the stages by which these three important components of professional education can be developed in novice teachers and to describe a potential teacher education program which aims to exemplify the process. The five-stage pattern of development mentioned earlier reflects our study of career development, career decision-making and continuing professional development.

Stages in Teacher Preparation

The five stages in our model, given in Figure 1, include awareness, exploration, establishment or crystallization, maintenance and renewal. It follows similar models by Ryans (1963), Smith, et al. (1980) and others.

The awareness stage involves prospective teachers in identifying the general nature of teaching and its responsibilities. Prospective teachers must learn about schools and schooling, about learners and learning processes, in order to make a basic decision to move toward a career in professional education. Awareness may include some knowledge, but its primary value is affective. Prospective teachers discover that the activities, belief patterns and commitment of the profession match theirs, at least on first investigation.

The exploration stage asks prospective teachers to spend some time in schools to see whether experience supports the preliminary commit-

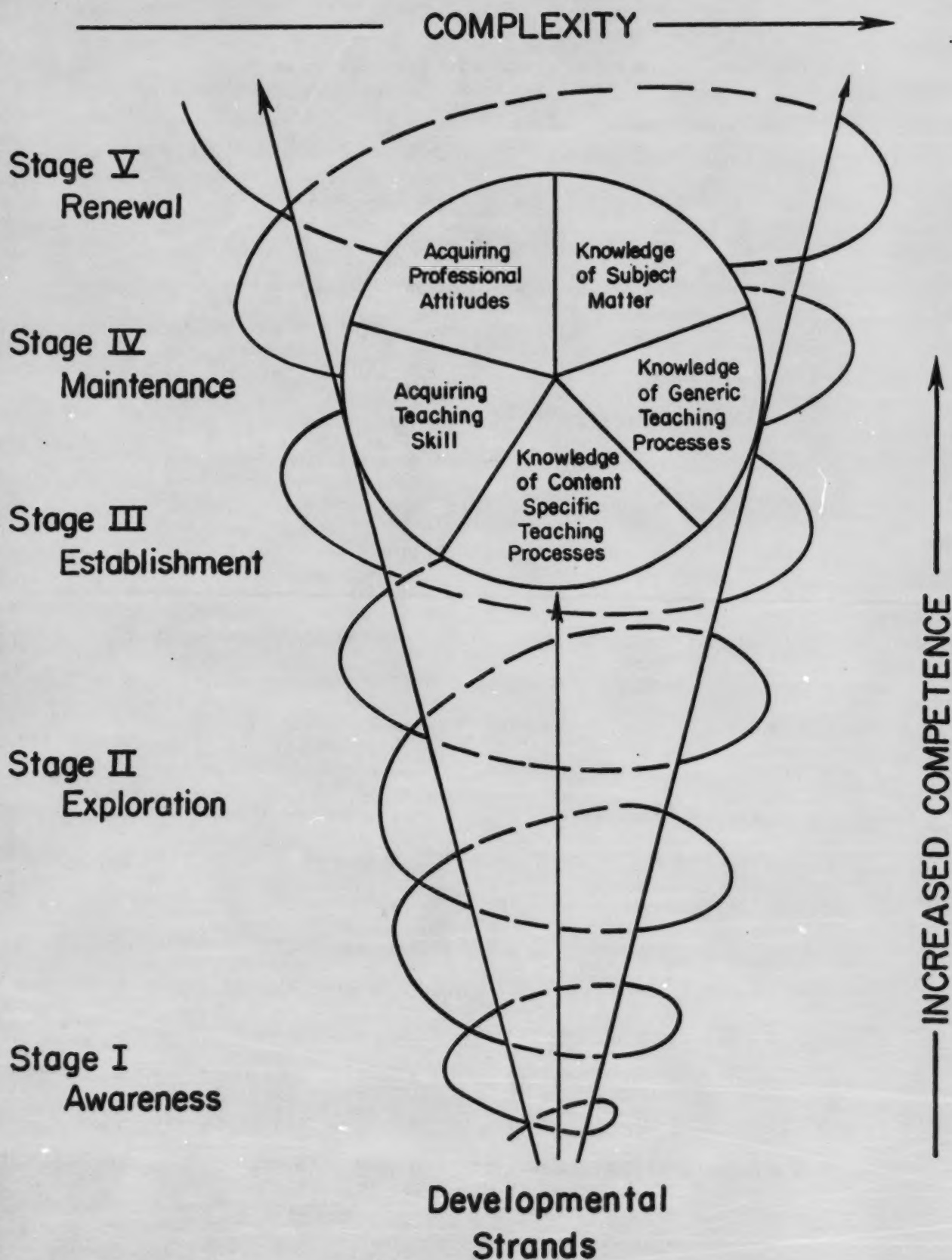


Figure 1. Stages in Teacher Preparation

ment they made in the awareness phase. Prospective teachers need to see how teachers operate at several levels, for example, intermediate grade and junior high levels, so that they can determine which age group they prefer to teach. They need to explore different subject areas to confirm their commitment to a particular discipline. Prospective teachers in the exploration stage need to experience the full range of teacher responsibilities--study hall, lunch and bus duty, paper grading, faculty meetings, extra-curricular activities, and the rest--so that their commitment reflects them.

The establishment or crystallization stage is the heart of the teacher preparation program. In this stage, prospective teachers have made an initial commitment by continuing in the program after the first two stages. The third stage provides deeper knowledge in both the subject and professional areas. In the professional area, planning, management and evaluation of instruction are studied in this stage, as are the special elements of teaching related to a specific discipline. The synergy between discipline and professional knowledge accrues, ideally, during this stage; that is, the whole picture crystallizes in the mind of the prospective teacher. This condition is demonstrated in the student teaching experience.

These three stages encompass the traditional teacher preparation program leading to initial certification. However, the final two stages are important in underlining the continuous process of teacher education. Stage four, labelled maintenance, includes the first few years of teaching in which initial competence is refined and solidified. The teacher's commitment is reinforced by successful teaching experiences. Stage five, renewal, begins when the teacher discovers that

there are areas in which s/he needs additional knowledge and/or skills. Renewal includes the first four stages in microcosm, so that the process is essentially cyclical, a spiral that is continually expanding. These final stages are usually dealt with in graduate study, inservice training, or both.

The general teacher education program is involved throughout the five phases, but the certification program in preparation of secondary teachers focuses on phases one through three. Here are some specific topics and areas of concern in these three phases:

1. Awareness:

- Introductory knowledge of subject area
- General knowledge in arts, humanities, science and social science
- Basic skill in writing, speaking, computation
- Introductory knowledge of psychology, sociology and their application to education

2. Exploration:

- Increasingly complex knowledge of subject area
- Exploratory experience in schools as a professional
- Knowledge (and observation) of teacher's role in school and community
- Exploration of interaction with students at various levels, including students who are handicapped or have cultural and linguistic differences

3. Establishment:

- Higher level knowledge of subject area
- Knowledge of instructional planning, management, and

evaluation

- Use of basic skills (reading, writing, speaking, computing) in professional situations
- Knowledge of instructional strategies that facilitate learning and positive attitudes in students
- Knowledge about students, including the exceptional and culturally different
- Knowledge about teaching basic skills (reading, writing, speaking, computing) to students in subject area
- Skill in carrying out instructional plans and procedures with students in groups of varying size
- Developing synergy between subject area knowledge and professional knowledge and skill, leading to professional decisions in field experiences and student teaching

The strands of knowledge, attitude and skill which run through the stages are the threads which hold together prospective teachers' developing professionalism. Building from basic to higher levels of knowledge, attitude and skill allows prospective teachers to develop a sense of their own competence and the confidence necessary to succeed in teaching.

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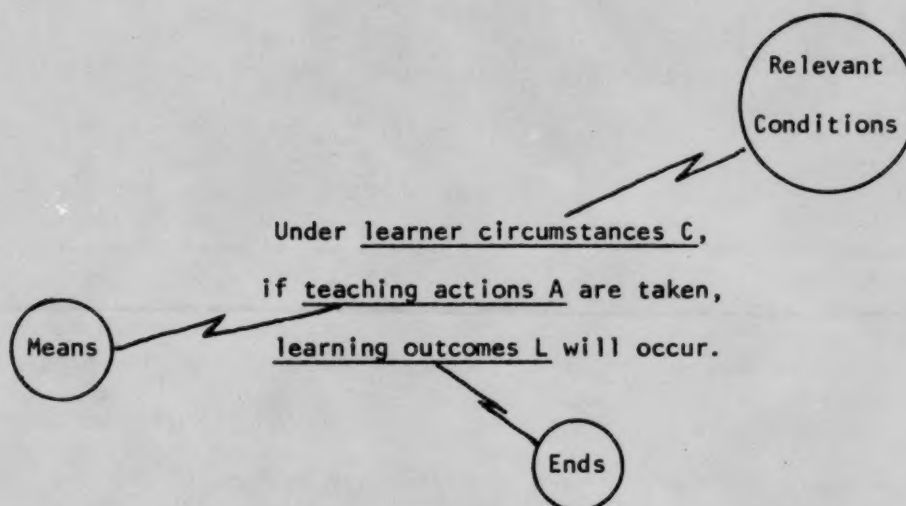
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THE
PENN STATE
PROGRAM

A Conceptual Base and Design
for The Secondary Program
John E. Searles*

From the preceding teacher education models, there evolved a conceptual base which was grounded in the instructional claim (Heimer, et al., 1973) and which is schematically diagrammed below.



A negative examination of the foregoing claim suggests that there are three major, interrelated sources of instructional error: namely (1) to fail, or be unable, to take into account appropriate learner circumstances; (2) to select inappropriate goals or operate out of inadequate goal systems; and/or (3) to implement instructional strategies that are inappropriate for achieving wanted learning outcomes under relevant,

*This paper was prepared by John E. Searles from the work of a committee composed of Professors Paul Bell, Ralph Heimer and John Searles. Additional comments and corrections were provided by the Secondary Education Committee of the Faculty of the Division of Curriculum and Instruction.

prevailing conditions. Examined positively, the instructional claim posits learning conditions, ends, and means as the principal foci for the conceptual and pragmatic dimensions of a teacher education program. It was this line of reasoning that led to the establishment of a coordinated sequence of courses leading to the student teaching experience.

The plan that is now in place calls for addressing the issue of learner circumstances as a first order of concern. It is here that the matters of prior learning, cognitive development, cultural background, the language of the learner, and so on, are to be considered--together with a discussion of how these variables might be recognized and attended to. Thus, the first course in the sequence is intended to deal mainly with learner circumstances relevant to teaching. The second course, on the other hand, has as its primary concern the matter of learning outcomes. It is the object of this course to provide prospective teachers with the competencies they need to adequately analyze the subject matter of their teaching specialty into systems of desired/needed learning outcomes; and, furthermore, to understand how wanted curricular ends relate to the matter of learner circumstances. Finally, the third term of the sequence is designed to examine the issue of how to choose teaching actions that have promise for promoting the attainment of specific intended learning outcomes under prevailing learner circumstances. The plan, then, is to programatically develop the operational aspects of the knowledge base by gradually pulling in more and more of the factors that need to be taken into account.

The plan for dealing with the pragmatic base is simple: for the first two courses, the practical competencies to be developed generally

involve the construction of documents or instruments of one nature or another. These skills can be honed in the college classroom, and justified against the theoretical constructs that have been developed. During the third term, the prospective teacher presumably has reached the stage where complete "teaching cycles" can be tried out, and it is at this point in the program where the first in-school visitations are scheduled. The intention is that these in-school experiences be carefully controlled and monitored in one-on-one or small group environments.

The goal of the program is to develop a practicing professional who is not only capable of teaching but is committed to a professional career.

The program offers opportunities, in courses, to lay the foundation for that profession in

- a conceptual base provided by knowledge acquisitions
- a pragmatic base provided by skill acquisitions
- an axiological base provided by attitudinal acquisitions

The System of Instruction to Reach the Goal

These bases are pivotal to the system of instruction blueprinted to meet the professional goal. A system of instruction is, of course, an intrinsic series of instructional activities which, in total, reach a specified goal. Within the system, decisional opportunities help to keep the system on track and expedite its direction toward goal fulfillment.

To better define the above-described general goal, it is subdivided into competency statements grouped around the tripartite foundation:

knowledges, skills, and attitudes. These competencies, in turn, are taught through a series of learning activities provided in courses for prospective teachers. Consequently, the system of instruction for prospective secondary teachers can be as follows:

- a description of their courses (particularly their C&I courses)
- a list of their expected general competencies
- a list of their expected specific competencies along with the objectives and teaching activities for each course

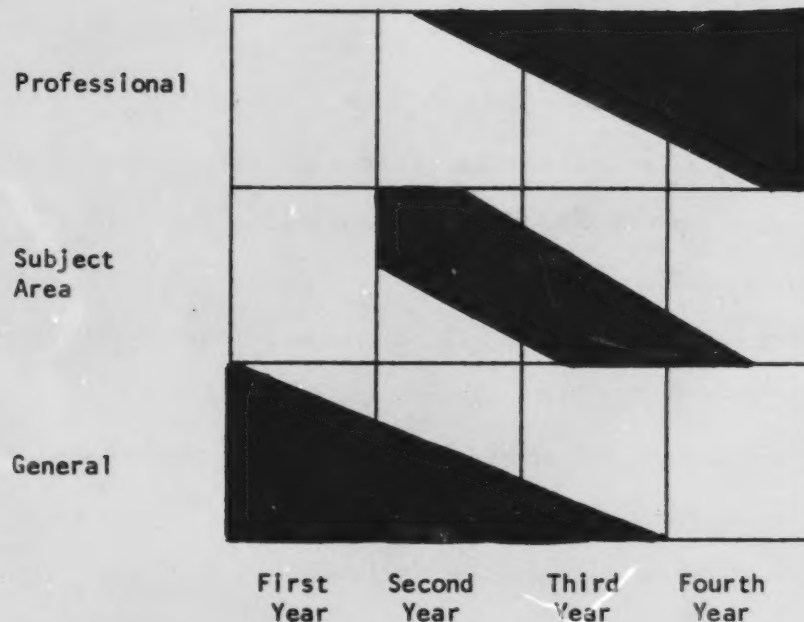
A Description of the Courses

The courses prospective teachers pursue are varied, organized, and classified into three broad categories.

- Courses whose content contributes to the general interest of educated men and women.
- Courses whose content contributes to the subject matter competence of the prospective teacher.
- Courses whose content contributes to the knowledge, skills and attitudes of the prospective teacher as a professional.

This organization can be depicted as follows:





The shadings are intended to give a general idea of the sequence and positions of the various types of courses in prospective teachers' total program.

Professional courses are arbitrarily classified into two types:

(1) Foundations

general psychology, educational psychology,
psychology of adolescents and educational measurement,
principles of sociology and cultural foundations of
education

(2) Curriculum and Instruction (C&I)

general courses and courses in teaching of the subject
(hereafter called special)* relating to:

*These special courses treat the subjects of mathematics (MTHED); reading, communication and language (RCLED); science (SCIED), and social studies (SSED).

- circumstances of the learners they will teach
- organization of the subject and evaluation of the learner
- strategies and tactics of instruction
- field experiences, that is, application of (1) and (2) with public school settings--
- general observation, C&I 211; small group instruction, C&I 413; full-time internship, C&I 414.

Because the C&I courses are central in defining teacher competency, they are presented in greater detail.

The content of the courses is as follows:

C&I 211 is taken as the first course and is a field experience in which the prospective teacher observes classes in schools to determine if the career choice is correct.

C&I 410 Taken concurrently as appropriate, these courses examine MTHED 410 areas in which learners differ individually (ability, RCLED 410 achievement, cognitive growth, and cultural background) and SCIED 410 the effects of those differences on instruction.

SSED 410

C&I 411 Taken concurrently as appropriate, these courses examine MTHED 411 principles and practices in organizing the subject matter to RCLED 411 be taught and evaluating both learner achievement and the SCIED 411 functioning of the organized system.

SSED 411

C&I 412 Taken concurrently as appropriate, these courses examine MTHED 412 principles and practices of presenting the subject to the RCLED 412 learner. These strategies (organized methods of presenting the material to be learned) and tactics (specific SSSED 412 techniques to operate the methods) are practiced in the class.

C&I 413 Taken concurrently with C&I 412 and the appropriate subject 412, this course offers the prospective teacher experiences in actual school situations to observe and to try the strategies and tactics with small groups of secondary school students.

C&I 414 This course is an internship in which the prospective teacher spends full-time in supervised experiences in a public secondary school.

The relation and sequence of the C&I group can be shown schematically as follows:

<u>2nd year</u>		<u>3rd year</u>		<u>4th year</u>
C&I 211	C&I 410	C&I 411	C&I 412	C&I 414
(2 credits)	(2 cr.)	(2 cr.)	(2 cr.)	(12 cr.)
to be taken				
with EdPsy 14	Spec. 410	Spec. 411	Spec. 412	
(Learning Theory)	(1 cr.)	(2 cr.)	(3 cr.)	
and/or EDTHP 115				
(Cultural			C&I 413	
Foundations of			(3 cr.)	
Education)				

It is necessary to point out that in actual practice the courses are not as categorical and separate as the above would imply.

General Competencies for the Program

Courses heretofore described are designed to meet the following general competencies. These general competencies, in turn, generate specific competencies for each course; within each course are learning activities designed to produce these specific competencies. It follows, of course, that these evaluative devices in each course were designed to determine the degree of attainment of the competency.

This list of competencies was defined with the quality goals of the Pennsylvania Department of Education in mind. They provide the foundation for the general competencies.

Knowledges

Prospective teachers will demonstrate knowledge of:

computation, communication and problem-solving skills appropriate to their teaching area.

their content specialty, both as a product and a process.

adolescence, its psychological and cultural characteristics.

pedagogical principles.

the general context of their specialty, past, present and future.

Skills

Prospective teachers will demonstrate the skills of:

being able to speak competently, read and interpret professional material, write in a logical and understandable style in standard English, and adequately comprehend spoken messages.

planning organized systems of instruction such as courses, units and lessons.

utilizing a variety of strategies and tactics of instruction.

Skills (continued)

assessing learners before and after instruction.

evaluating curricular materials (print and non-print) for content effectiveness, reading level and multi-cultural inclusion.

diagnosing and prescribing for the exceptional learners.

diagnosing and prescribing for the individual difference in learners from different cultural and linguistic backgrounds.

using school-related activities in their instruction.

Attitudes

Prospective teachers will:

base their actions on a defined rationale for their actions.

encourage students to exercise privileges, rights and responsibilities as citizens.

define and treat instructional situations with the discretion which protects the personal privacy of individuals involved.

be responsible and accountable for their own actions paying due regard to professional standards of punctuality, personal appearance, personal habits, and personal relationships and the canons of professional ethics.

demonstrate positive human interactions.

foster group cohesion, productivity and cooperation.

base their actions on interactions with community members and the world of work.

Attitudes (continued)

be autonomous and self-directed within
a general environment of cooperation
with, and trust of, colleagues.

be able to tolerate the ambiguities of
a changing society with grace and good
humor.

Specific Activities for Each Course

Following this section, a description of the activities for each
course is given. These activities are being revised at this writing
as the University converts its class schedules from a term to a
semester system.

Activities

CI 410

Each prospective teacher will -

1. Demonstrate his/her competence in speaking before groups, reading professional materials, writing for a professional audience, computing at professional levels.
2. Demonstrate his/her competence in basic measurement techniques.
3. Demonstrate understanding of behaviorist, Gestalt/field, and cognitive-developmental theories of learning.
4. Demonstrate understanding of taxonomies of cognitive, affective and psychomotor domains.
5. Demonstrate understanding of the basic components of culture in a 3-5 page paper discussing a firsthand observation of a subculture.
6. Demonstrate understanding of language development and linguistic differences among students.
7. Demonstrate understanding of characteristics of handicapping conditions, features of P.L. 94-142 and curriculum adjustments for each of the major handicapping conditions.
8. Demonstrate understanding of behavioral objectives and write appropriate objectives in three domains.
9. Demonstrate competence in use of the Withall scale as a method of systematic observation and evaluation in the classroom.

Activities

CI 411

Each prospective teacher will -

1. Develop an understanding of the secondary curriculum and the place of his/her subject area in the total school curriculum and in state curriculum regulations.
 2. Develop unformal reading assessment instruments, including an informal reading inventory and a cloze procedure, based on texts in his/her subject area.
 3. Compare norm- and criterion-referenced testing procedures, including the strengths and weaknesses of each, focusing on reading tests and the basic skills assessments which s/he completed.
 4. Complete evaluations of texts and comparisons between texts on the subject area.
 5. Develop an annotated bibliography of print and nonprint materials suitable for use in teaching unit in his/her subject area.
 6. Rewrite instructional material from its original level to one appropriate to students' reading level.
 7. Analyze reading material in his/her subject area for its concept load.
 8. Develop an understanding of the reading process and its place in secondary schools.
 9. Demonstrate competence in operating audiovisual equipment.
 10. Develop an understanding of the identification, selection and evaluation of nonprint teaching materials.
 11. Demonstrate competence in developing media materials useful in teaching his/her subject area.
 12. Demonstrate his/her understanding of evaluation in all three domains and competence in developing evaluation items keyed to objectives in the cognitive domain and in either the psychomotor or affective domain.
- 2

Activities

CI 412

Each prospective teacher will -

1. Develop a teaching unit 3-6 weeks long, including concern for reading instruction and the accommodation of exceptional learners.
2. Develop a Directed Reading Activity on a reading selection in his/her teaching field, as an example of a coherent lesson plan.
3. Demonstrate minimum competence in the use of the Ribble scale as a system of classroom observation.
4. Write appropriate questions for classroom use, following Bloom's taxonomy of cognitive learning and/or Barrett's taxonomy of reading comprehension.
5. Demonstrate understanding of strategies for classroom management, including the accommodation of exceptional learners.
6. Demonstrate understanding of five major teaching strategies.
7. Develop a set of three activities for teaching specific reading skills related to reading material in his/her subject area.

Activities

MTHED 410

Each prospective teacher will-

- 1.1 Describe the three-term professional secondary education experience at Penn State: the term-by-term sequence of events and the associated rationales.
- 2.1 Explain/illustrate Piaget's basic strategies for determining an individual's stage of cognition development: pre-operational, concrete operational or formal operations.
- 2.2 Describe the pedagogical significance of a child's stage of cognitive development.
- 3.1 Describe the major consequences of cultural differences in terms of potential for learning mathematics.
- 4.1 Describe the major consequences of linguistic differences in terms of potential for mathematics learning.
- 5.1 Explain the special considerations that must be taken into account when attempting to teach mathematics to handicapped students who are in regular classrooms as a result of the provisions of mainstreaming.
- 6.1 Given a (macro) learning hierarchy in mathematics construct samples of the types of learning tasks suggested by each component.
- 6.2 Given a (macro) learning hierarchy in mathematics, explain how it can be employed for:
 - a) diagnostic purposes;
 - b) development and maintenance of up-to-date profiles of achievement;
 - c) prescriptions for "on-target" teaching.
- 7.1 Name and describe the five major categories of human capability as identified by Gagne/Briggs.
- 7.2 Write performance objectives in mathematics which conform to the five-component model recommended by Gagne/Briggs.
- 8.1 Given learning hierarchies in the mathematics domain, use them to construct criterion-referenced achievement assessment instruments.
- 8.2 Name and describe the major uses of objectives - referenced assessment.
- 8.3 Interpret standardized test data in the mathematics realm.

Activities

MTHED 411

Each prospective teacher will-

- 1.1 Describe the major considerations that must be taken into account in forming adequate systems of learning outcomes.
- 1.2 Distinguish the differences between curriculum as a system of desired ends and instruction as a means of achieving these ends.
- 1.3 Determine the adequacy of proposed curricular designs in the domain of high school algebra.
- 1.4 Determine the adequacy of proposed curricular designs in the domain of high school geometry.
- 2.1 Explain the major differences between norm-referenced and criterion-referenced procedures for assessing achievement.
- 2.2 Design and construct diagnostic (criterion-referenced) testing instruments that are appropriate for conducting in-depth assessments of student achievement in a specified domain of secondary school mathematics.
- 2.3 Develop procedures for constructing and maintaining up-to-date reports of student learning states in a specified high school mathematics curriculum.
- 2.4 Explain how computers can be employed for purposes of learning management on an individualized basis.

Activities

MTHED 412

Each prospective teacher will-

- 1.1 List and describe the major functions that must be brought under control and integrated in order to implement a systems approach to instruction.
- 1.2 Explain the role of information technology in invoking systems approaches to instruction.
- 2.1 Describe the mastery learning precept as delineated by Bloom and explain the major assumptions upon which it is based.
- 2.2 Develop a curriculum plan which can be employed as a basis for implementing the Block/Anderson Model for mastery learning.
- 2.3 Develop a curriculum plan which can be employed as a basis for implementing a system of individualized instruction.
- 2.4 Explain how computers can be employed to assist in the functions of learning management.
- 3.1 Name and describe the instructional variables of most critical importance.
- 3.2 Design, develop and justify instructional plans for specific mathematical topics that can be invoked either in group or in individualized learning settings.
- 3.3 Construct and justify instructional plans for specific mathematical topics which illustrate such strategies as:
 - a) teaching for discovery;
 - b) inquiry teaching/problem solving;
 - c) didactic teaching;
 - d) the use of learning laboratories.
- 4.1 Describe the major bases upon which to judge the effectiveness of an instructional system.
- 4.2 Develop and justify plans for the evaluation of personal teaching efforts including information about how the results are to be employed.

Activities

RCLED 410

Each prospective teacher will-

1. Defend his/her choice of oral/aural content for a grade-level-identified English class.
 - 1.1 Identify the philosophical/psychological theory upon which the choice is made.
2. Provide a Piagetian rationale for criterion referenced tests at two educational levels.
 - 2.1 Explain the use of Piagetian principles for one or more language arts curricular designs.
3. List expository writing standards.
 - 3.1 Explain behavioral theories undergirding expository standards.
4. Demonstrate your knowledge of three learning theories by making a brief presentation of pertinent language arts material to the class.
5. Explain how cultural differences in English affect classroom behavior in multi-ethnic groups.
List at least five resources for obtaining material for working with multi-racial groups.
6. Identify the Lau amendments and indicate their implications for teaching dialects.
 - 6.1 Defend a strategy for adapting curricular guides to accommodate dialectical differences.
7. Explain the rationale for mainstreaming in the language arts.
 - 7.1 Describe an IEP you would use for some specific handicapping position which you identify.
8. Illustrate an observation instrument used to judge students/teachers/verbal behavior.
 - 8.1 Explain the uses of sociograms as an observation instrument.
9. List five major problems inherent in standardized (norm-referenced) testing.
 - 9.1 Explain at least three advantages for the uses of alternatives to standardized tests.

Activities

RCLED 411

Each prospective teacher will-

1. Identify at least two major curricular designs in C/E reading at the national, state, and local levels. Reading Check
- 1.1 Compare and contrast (minimum of two pages) two C/E curricular guides identifying learning/Instructional principles used as foundation for same, 10%.
2. Define interdisciplinary and intergroup curricular guides, identifying at least two at national and state levels. Reading Check
- 2.2 Design a daily plan for teaching some aspect of C/E reading which incorporates principles and/or resources from intergroup guides within it, 15% (may be recycled).
3. Write a block plan which display your attention to curricular, multi-ethnic, multi-level principles and which uses one or more domains of Bloom's taxonomy within its structure, 20% (may be recycled).
4. Describe three assessment techniques other than paper/pencil testing which can be used to assess C/E reading and give a brief rationale for the value of such tests over traditional assessment techniques. Reading Check
5. Describe the steps you would take to ascertain minimal competencies within a C/E reading class such that "survival" skills would be set as a baseline for your students. Reading Check
6. Construct a C/E reading profile at one grade level.
7. Using the plan you submitted in 2.2 demonstrate to your peers your ability to supplement that plan with appropriate AV aids within a short (no longer than 10 minutes) teaching stint, 15%.
8. Critique (one to one-and-one-half pages) a methods text for teaching English and/or reading OR a high school textbook (CMC) used to teach C/E reading, 10%.
9. Teach a lesson in C/E reading to a local group of high school students.

Activities

RCLED 412

Each prospective teacher will-

1. Develop strategies and tactics for instruction in their content speciality which is revealed through a written observation report keyed to specified roles and competencies for C/E Reading teachers. 10%
2. Develop strategies and tactics for instruction, in their content specialities which display knowledge and application of NCTE vs. COE philosophies for teaching as revealed in daily lesson plans and/or IEP's. 10% in Unit
3. Develop strategies and tactics for instruction in their content specialities which simulate teaching situations for two different grade levels and two teaching philosophies. 10% in Unit
4. Develop strategies and tactics for instruction in their content specialities which reveal their knowledge and translation of curricular models in their fields into instructional objectives. 10% in Unit
5. Develop strategies and tactics for instruction in their content specialities which identify sequencing problems; list at least two solutions for same as documented in their long-range teaching designs. 10% in Unit
6. Develop strategies and tactics for instruction in their content specialities which, through a peer teaching situation, reveal their abilities to incorporate principles for short and long-range reading designs for minority students. Discussion
7. Develop strategies and tactics for instruction in their content specialities which reveal, through simulation and discussion, their ability to provide appropriate management skills for a given classroom situation. Discussion 413
8. Develop strategies and tactics for instruction in their content specialities which display their knowledge of instructional systems, evaluations, and teacher accountabilities based upon students' performances through same.
9. Develop strategies and tactics for instruction in their content specialities which reveal their knowledge of research, professional responsibilities and alternative career opportunities through class discussion and long-range instructional designs.

Activities

SCIED 410

Each prospective teacher will-

1. describe and illustrate science (from their certification area) as product.
2. describe and illustrate science (from their certification area) as process.
3. analyze elements of the theories of three educational theorists (Piaget, Ausubel, Gagne) and relate their axioms to teaching in their area of specialization.
4. adapt some complex scientific principle from their discipline so that it can be communicated to students in their certification area.
5. use and illustrate appropriate problem-solving skills and computation measures in adapting a complex scientific principle so that it can be communicated to students in their certification area.
6. report science learning experiences which can be individualized to fit a variety of cognitive ability levels.
7. describe alternative teaching strategies which can be used with individual and group activities in the science laboratory.
8. describe physical and emotional characteristics and illustrate how those characteristics can be used in furthering the learning of science in secondary school.

Activities

SCIED 411

Each prospective teacher will-

1. Define instructional design.
2. List and explain with examples the implementation steps of instructional design.
3. Identify and develop an instrument to assess learner characteristics prior to instruction.
4. Describe some of the characteristics of gifted and mainstreamed students and suggest adaptation in content to meet their needs.
5. Identify and organize content with respect to facts, concepts and principles.
6. Identify and organize content along conceptual continuums.
7. Develop charts and diagrams that show similarities and differences of content and represent abstract content in a concrete manner.
8. Utilize the library to locate various sources of information on a given topic for LAP.
9. Task analyze a terminal objective.
10. List discrepant events and develop an invitation to inquiry scenario.
11. Develop a LAP (learning activity packet) with another member of the class as an example of an independent student learning activity.
12. Use supply catalogues to select supplies for a given topic within a given budget.
13. Analyze a textbook for its appropriateness for use.
14. Describe strengths and weaknesses of Nationally Developed Science Curriculum.
15. Analyze the National Assessment of Educational Progress with respect to science achievement and attitudes.
16. Contrast two extremes of a controversial subject that could be taught in secondary science and explain how such a topic would be handled in the classroom.
17. Complete assigned work, participate in class discussions and regularly attend class.
18. Work cooperatively with other classmates.

Activities

SCIED 412

Each prospective teacher will-

1. Develop a definition of science.
2. Write a justification of why science instruction is important in secondary education.
3. List and give examples of the processes of science.
4. Describe the systems of the processes of science.
5. Distinguish between and write general goals and specific objectives in the three learning domains.
6. Identify and utilize principles of learning when developing learning strategies.
7. Categorize questions in the cognitive domain.
8. Employ different questioning and feedback strategies.
9. Distinguish the differences and similarities between lecture, guided discovery and discovery modes of instruction.
10. Prepare lesson plans that include objectives, teaching strategies and evaluations that illustrate lecture and discovery modes of instruction.
11. Prepare lesson plans that include objectives, teaching strategies and evaluations for an outdoor learning activity.
12. Prepare lesson plans that include objectives, teaching strategies and evaluations for a laboratory demonstration.
13. Teach mini-lessons from lesson plans.
14. Evaluate lesson plans and mini-lessons and make the necessary adjustments.
15. Develop or modify lesson plans to accommodate either a gifted or mainstreamed student with justification for the appropriateness of the plan.
16. Distinguish between formative, summative; criterion-referenced, norm-referenced; and reliability, validity with respect to evaluation.
17. Construct a Concept/Taxonomic grid and develop evaluation instruments from it.

SCIED 412 Continued

18. Construct affective criterion referenced, and self-evaluation, instruments.
19. Discuss problems in science education and plan appropriate lessons that deal with them.
20. Develop an instructional game.
21. Review recent research in science education and adapt the findings to classroom practices.
22. Develop a learning center.
23. Develop an academic/behavioral contract.
24. Complete assigned work, participate in class discussions and regularly attend classes.
25. Provide constructive feedback to other class members utilizing systematic observational techniques.
26. Work cooperatively with other class members.

Activities

SSED 410

Each prospective teacher will-

- 1 - The prospective teacher, after reading Chapters One, Two and Three of the text and attending to an explanation, will understand the program of training which starts with this course.
- 2 - The prospective teacher, after reading Chapter Five of the text, attending to an explanation of anticipated learner differences in achievement, will be able to synthesize the idea into an adequate description of the learners in his/her social studies class by contributing to a group examination of the idea.
- 3 - The prospective teacher, after reading Chapter Five of the text, attending to an explanation of anticipated learner differences in ability, will be able to synthesize the idea into an adequate description of the learners in his/her social studies class by contributing to a group examination of the idea.
- 4 - The prospective teacher, after reading Chapter Five of the text, attending to an explanation of anticipated learner differences in cognitive development, will be able to synthesize the idea into an adequate description of the learners in his/her social studies class by contributing to a group examination of the idea.
- 5 - The prospective teacher, after reading Chapter Five of the text, attending to an explanation of anticipated learner differences in cultural background, will be able to synthesize the idea into an adequate description of the learners in his/her social studies class by contributing to a group examination of the idea.
- 6 - The prospective teacher, after analyzing the learner circumstances, will be able to synthesize them into a coherent evaluation of the effect of the adolescent culture on the teaching of the social studies.

Activities

SSED 411

Each prospective teacher will-

- 1 - The prospective teacher, after reading Chapter Four and attending to an explanation, will be able to define the intents for teaching social studies by contributing to group examination of the topic.
- 2 - The prospective teacher, after attending to an explanation and after reading a social studies text for each grade level, will be able to define orally the curricular approaches to the secondary social studies.
- 3 - The prospective teacher, after reading a social studies text for each grade level, will be able to define orally the content for each grade level in the junior high school.
- 4 - The prospective teacher, after reading a social studies text for each grade level, will be able to define orally the content for each grade level in the senior high school.
- 5 - The prospective teacher, after defining the basic concepts of the social studies, will be able to analyze how they are covered in textbooks and courses of study and demonstrate this analysis orally in class.
- 6 - The prospective teacher, after defining basic concepts in the social studies, will be able to use them as "cultural descriptors" to analyze a culture of their choice.
- 7 - The prospective teacher, after reading Chapter Twelve, attending to an explanation and contributing to a group examination of evaluation, will be able to analyze in class sample test items in social studies given by the instructor.
- 8 - The prospective teacher, after reading Chapter Twelve, attending to an explanation and contributing to a group examination of evaluation, will be able to construct in class a specification chart of test questions.
- 9 - The prospective teacher, after reading Chapter Twelve, attending to an explanation and contributing to a group examination of evaluation, will be able to construct in class sample test items in social studies for topics given by the instructor.
- 10 - The prospective teacher, after completing the previous activities, will be able to synthesize their knowledge of evaluation into a defined set of criteria for their students' performance.

SSED 412

Each prospective teacher will-

- 1 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of communication theory, will be able to apply the salient features to instruction in a class discussion.
- 2 - The prospective teacher, after reading Chapters Seven and Eight of the text, will be able to analyze the sample design on the checksheet provided.
- 3 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the strategy of exposition, will be able to design and teach a lesson using that strategy.
- 4 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the strategy of examination, will be able to design and teach a lesson using that strategy.
- 5 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the strategy of investigation, will be able to design and teach a lesson using that strategy.
- 6 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the strategy of problem analysis, will be able to design and teach a lesson using that strategy.
- 7 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the strategy of decision making, will be able to design and teach a lesson using that strategy.
- 8 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the tactics of ordering, will be able to teach a lesson incorporating these tactics.
- 9 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the tactics of involving learners through questions, will be able to teach a lesson incorporating these tactics.
- 10 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the tactics of exemplifying, will be able to teach a lesson incorporating these tactics.
- 11 - The prospective teacher, after reading Chapters Nine and Ten, attending to an explanation, and contributing to a group examination of the role of instructional media in design, will be able to incorporate four media into a teaching episode.
- 12 - The prospective teacher, after completing the above exercises, will be able to develop a unit plan utilizing the strategies and tactics defined.

Foreign Languages

Educating teachers of foreign languages poses special problems not only for the new secondary education program at Penn State but also at most universities around the country. The problem turns on the fact that there is a declining interest in foreign languages among secondary school students while, paradoxically, there is a major population increase in speakers of foreign languages. Similarly, as schools face budget cuts, foreign language programs are one of the first to be cut because of low student enrollments in same. Finally, the plethora of foreign languages makes it difficult for schools to choose which of them they will offer. French, still the language of diplomacy, makes its case on that basis. Spanish, because of population influxes from Cuba, Mexico, and Puerto Rico, makes its case on need and practicality. Concerns for detente and for communication with our recent ally, China, make sound cases for choosing Russian and Chinese for some school districts. Latin, always a concern for potential lawyers and doctors, makes its case on the grounds of classical utility. Other romance and Scandanavian languages surface from time to time in ethnic sections of cities and towns (Polish in Chicago, for example).

One solution to the multiple language problem for educating foreign language teachers would be to have each foreign language department teach the "methods" course for each foreign language. But such a solution is not practical. The numbers of students enrolled in a given foreign language course varies widely, and to have one faculty member teach three students of French, and another two students of Russian would be unduly expensive.

On occasion, a foreign language department (usually Spanish or French) can get a sufficiently large number of students together to justify a methods course in Spanish or French--offered once a year or once every two years. But students can't afford to gamble on such time frames and enrollments, so the Division does the best that it can under the present fiscal situation by offering the following two courses for all foreign language teachers:

RCLED 424. Seminar in Foreign Language and Bilingual Education. Contemporary issues in foreign language and bilingual education for prospective and practicing teachers of foreign languages and bilingual education.

RCLED 445. Teaching English in Bilingual/Dialectical Education. Theories, techniques, materials for teaching English speaking, reading, and writing to bilingual and non-native speakers in elementary and secondary schools. Prerequisites: RCLED 442 or teaching experience.

These two courses substitute for the sequenced methods courses Special Methods 410, 411, and 412 (cf. pp. 45-57 for detailed descriptions of those courses). In other professional courses, however, the prospective teacher of foreign languages has the same field experiences, seminars, and professional course work as other prospective teachers. Courses within each foreign language teacher's discipline are similar to the array of courses found in English and other disciplines, that is a range of 30-40 credits above basic courses.

Professional competencies for foreign language teachers are the same as those described for all other teachers and are systematically reviewed within the C&I 211, 413, and 414 courses. Foreign language competencies are presumed to be a function of students' successful (grade of C or better) performances in their course work, special

methods courses (if available) general methods courses (RCLEd 424 and 445) and cooperating teacher/supervisor evaluations during their student teaching (C&I 414).

As previously indicated, the idea of a special methods course for each prospective foreign language teacher in the language of the prospective teacher's choice would be ideal. Neither student enrollments nor college/university budgets could support such a luxury in higher education's current climate of fiscal austerity. Still, follow-up of foreign language teachers' performances in their first year of employment show that they are doing well in their fulfillment of foreign language program objectives in their respective schools. Such success is gratifying, but with annual enrollments of three to ten prospective foreign language teachers, it is not likely that funds or personnel will be available in the near future to establish the preferred ideal program. If enrollments were to increase markedly or if bilingual program enrollments were to soar, possibilities for approaching the ideal program would brighten, and a better fit between the articulated general/special methods courses for prospective foreign language teachers would be attempted.

Program Field Experiences: Rationale
Sequence and Assessment

Edward R. Fagan and Robert F. Neuhard

Review

Reports almost unanimously support field experiences as pivotal to aspiring teachers vocational choices; conversely, such experiences have been equally valuable as screening devices for students unable or unwilling to decide about teaching as a career (Spillane & Levenson, 1976, Messerli, 1977). In this latter case, such students have been counseled into other vocational choices with mutual benefits to both vocations. Although hyperbole sometimes creeps into reports about field experiences, particularly when they are tied to teaching centers (Julius, 1976; Quinn, 1976), it's important to note that most teachers who have few or no field experiences insist that those experiences would have been valuable in their undergraduate programs. Penn State (Bell & Trueblood, 1972) (vonDorpowski & Grow, 1979)(Laine & Fagan, 1980) has found virtually unanimous recommendations for undergraduate field experiences by every group of first-year secondary teachers surveyed since 1970.

While field experiences have been an integral part of elementary education programs at Penn State for some time, their role in secondary programs has been possible only within the last five years (1975-1980) when shrinking enrollments and Pennsylvania Department of Education (PDE) support for innovative teacher education programs made public school placement of prospective secondary teachers fiscally and professionally feasible. Fiscal support was necessary to cover

transportation costs for the students who had to be bussed into areas other than the saturated State College secondary schools; professional support was necessary from teachers at the cooperating schools who critiqued the field experience program and recommended additions, corrections, and amendments to them.

Finally, national critics of teacher education programs and graduates of Penn State's Secondary Education program agreed that prospective teachers should participate in public school activities as soon as possible. Another reported advantage of such early participation in public school activities is the transfer to training benefits, that is, that prospective teachers can balance the theories taught in educational foundations courses (philosophy, psychology, sociology) with the realities within public school systems.

With the foregoing qualifications in mind, it seems wise to review the collaborative program design so that articulation among the three field experiences can be linked.

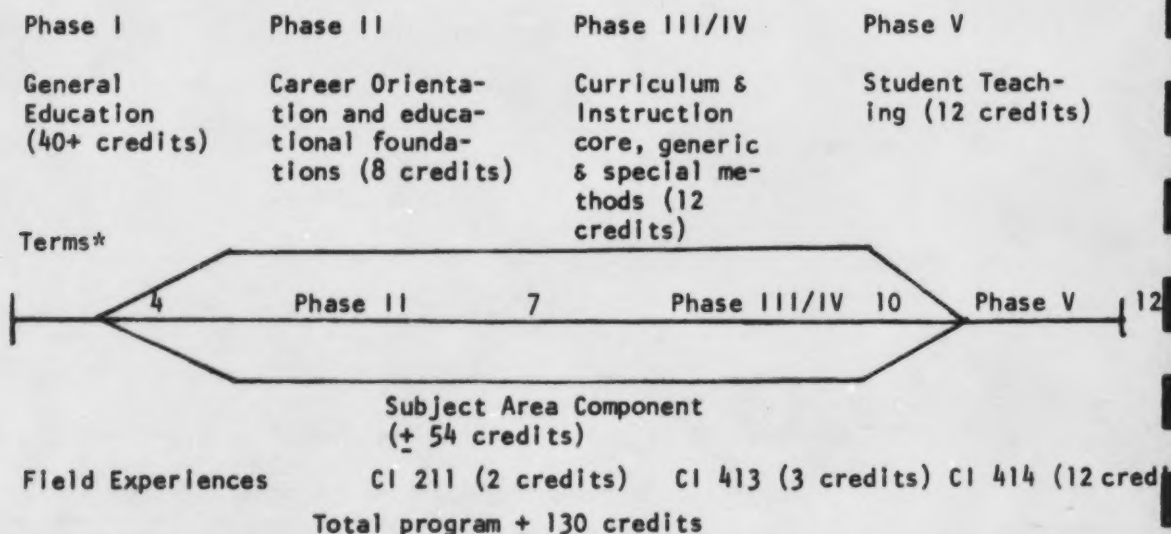


Figure 2. Phased program for undergraduate teacher education.

*A Term is twelve calendar weeks and uses semester hours for course credit.

Field Experiences: Purposes

The sophomore, junior, and senior field experiences were designed to connect educational theory and practice in ways described by research reports as most effective for such linkage. From that prime directive, partial solutions to other complaints about undergraduate teacher education programs were also addressed and were as follows:

1. To provide opportunities for students to make vocational choices based upon their tentative decision to become a teacher.
2. To titrate educational theory with educational practice in matters such as philosophical, psychological and social foundations of education; and with general and discipline-based methods for teaching.
3. To practice teaching small groups, tutorials, parts of classes, and the like, to discover organization, management, and content problems should they arise during student teaching assignments.
4. To participate in the full range of teaching experiences--curricular and extracurricular assignments--and to simulate, insofar as possible, the daily tasks of classroom teachers in public schools.

Both the prime directive and its consequent subsets have generated controversial and arbitrary counterpoints to the field-experience ideas (Noddings, 1974; Tyo, 1979). Concerning the prime directive, some scholars (Grommon, 1963) question insistence on early commitment to teaching. They point out that immaturity, limited experience, or anomie may force some of the best teacher candidates out of teaching

by insisting upon their early commitment. Counterpointing that judgment is one which maintains that goal-directed vocational choice is exactly the kind of dedication which should identify a profession. Those who hold with this latter judgment insist that if the desire to teach is strong enough among late decision makers, they can fulfill certification requirements after completing their degree. The important factor is vocational commitment by the prospective teacher no matter where that occurs in the professional chronology.

Sophomore Program

While such a vocational commitment tends to be attitudinal and mixed with idealism, the student's first (sophomore level) field experience is designed to temper idealism with reality, provide a range of teaching observations, and offer students opportunities to perform some teaching-related tasks; for example, planning a lesson, typing a stencil, directing a bulletin board project. These observations and activities, conducted at both elementary and secondary levels (about thirty clock hours at each level) also serve as a basis for seminar discussions about learning theories (from students' concurrent enrollments in Educational Psychology 14) and/or the historical, philosophical, and social foundations of American education from Educational Theory and Practice 115.

Catalog descriptions for this block of sophomore courses are as follows:

C&I 211. INTRODUCTORY FIELD EXPERIENCE FOR TEACHER PREPARATION (2-3 credits per term, maximum of 6) Selected observation of schooling situations with small group and tutorial participation. Prerequisite: third-term standing. Concurrent: EDTHP 115 and/or Ed. Psy. 14.

EDTHP 115. EDUCATION IN AMERICAN SOCIETY (3:3:0) Introduction to the development of educational institutions, with emphasis on historical, philosophical, and sociological forces.

EDPSY 14. LEARNING AND INSTRUCTION (3:3:0) Psychology of human learning applied toward the achievement of educational goals; evaluation of learning outcomes.

This course-block is potentially available at all of the University's Commonwealth Campuses (approximately 19) but, in fact, this potential is realized only where College of Education personnel are stationed, that is, at approximately 11 campuses. While objectives for these courses are the same regardless of the campus on which they're offered, there is some flexibility in the EPTHP 115 course in that each Commonwealth Campus (CC) instructor may choose which three out of the following four foundations areas s/he will teach for any given term: comparative education, history of education, sociology of education, and philosophy of education. Within the areas chosen, there are specific field-experience activities which students choose as sounding boards to test educational theory against the reality of public school classrooms.

In the 115 course, a few examples of such activities under the previously mentioned categories are as follows:

A. Comparative Education

1. Find the number of international students in the school and discover what, if any, cultural advantage they provide to the school.
2. Determine the extent of international activities at the school, e.g., U.N. Days, etc.

B. History of Education

1. Develop brief institutional histories of the local public school, parochial and private schools in the area, the vocational-technical school, post-secondary institutions in the community.
2. Use newspapers or interviews to determine the economic history of the community and the impact of the economy upon schooling.

C. Sociology of Education

1. Analyze the ethnic, racial, and class composition of the student body and compare those findings with similar data for a) board of education members, b) administrators, c) teachers, d) PTA leaders.
2. Analyze the ethnic, racial, and class composition of students in various curricula, ability groups, and student activities.

D. Philosophy of Education

1. Determine if the school seems humanistic or behavioristic in orientation.
2. Ask teachers about specific educational objectives vs. broad, general objectives.

Such student activities coupled with seminars and a task checkoff list (to be discussed later) serve as reinforcers for theories presented in the Foundations course.

The Educational Psychology 14 (EDPSY) course has a similar set of activities tied to learning theories. Among the activities for

the EDPSY course are the following:

1. Modifying Behavior Through Reinforcement

Students identify some specific behavior whose frequency should be increased or decreased, establish base-line frequency, appropriately reinforce and note the change in frequency of occurrence.

2. Teaching Facts

Students identify a set of facts appropriate to a given topic and grade level, then teach them using recitation (active learning), meaning (variety of association), and/or structure (sequence, classification or organization).

These excerpts from the foundations and learning theories courses do not do justice to the details and criteria used to judge whether or not their activity-objectives have been fulfilled. For now, let it suffice to say that multiple criteria are used to ascertain correlative data between course theories and field-experiences.

Another purpose for examining such correlatives within a field experience setting was to see what student perceptual differences, if any, occurred between their teaching simulations within theory courses and their field-experience participation in public schools. In this instance, data generated would help to answer questions about the effectiveness of simulations and field experiences in helping students to link theory and reality.

Junior Program

The Junior program (Phase III/IV, Figure 1) was designed to explore the articulation of theory and practice through the simultaneous study of generic methods and special methods over three consecutive terms. During the culminating term for these methods courses, students spend one full day per week for eight weeks in a public secondary school. Their activities during that day range from school opening activities to the taking over of a small group of students within a given class contingent upon each student's willingness, skill, and confidence as determined by the student, cooperating teacher, and college supervisor. Actual catalog descriptions of the general and specific methods courses (Teaching Secondary Science, as example) are as follows:

CI 410. SECONDARY TEACHING (2:2:0) Introduction to secondary teaching, including review of learning theory, understanding and assessing students' cultural, linguistic, cognitive, and affective differences. Prerequisites: Ed.Psy. 14, C.F.Ed. 115.

CI 411. SECONDARY TEACHING II (2:2:0) Introduction to secondary school curriculum, instructional design, student evaluation, and the design, production, and selection of instructional materials. Prerequisite: C.I. 410.

CI 412. SECONDARY TEACHING III (2:2:0) Study of the teacher's responsibilities, steps in planning instruction, and various strategies for implementing and assessing teaching. Prerequisite: C.I. 411.

CI 413. CLINICAL APPLICATION OF INSTRUCTION AND MANAGEMENT SKILLS (3 per term, maximum of 6) Practicum situation for demonstration of selected instructional strategies and management skills acquired in professional training. Prerequisites: C.F.Ed. 115, Ed. Psy. 14; C.I. 211 or E.E.C. 205. Concurrent: regular professional methods courses in areas of certification.

SCIED 410. TEACHING SECONDARY SCIENCE (1:1:0) Application of communication, cultural, developmental, and learning theories to the conceptualization of science instruction. Concurrent: C.I. 410.

SCIED 411. TEACHING SECONDARY SCIENCE II (2:2:0) Planning of learning activities, lessons, units, courses, and tests for science instruction. Prerequisite: Sci. Ed. 410. Concurrent: C.I. 411.

SCIED 412. TEACHING SECONDARY SCIENCE III (3:2:2) Implementation of science instruction using a variety of modern approaches. Prerequisite: Sci. Ed. 411. Concurrent: C.I. 412.

Each secondary discipline has the same pattern of descriptions as the above-listed science excerpt, that is, Teaching Secondary Mathematics, Teaching Secondary English, etc. Notice that CI 413 has prerequisites which include the sophomore field experiences as well as the concurrent methods courses both general and special.

General concepts, theories, and delivery systems from the general methods courses are adapted and applied in each special methods course so that students' grasp of their discipline is polished for field-experience trials. Criteria for judging the effectiveness of such trials were jointly derived by a myriad of educators representing all facets of the secondary school systems. Details about criterial derivations will be found in the Procedures section.

Senior Program

The senior program (Phase II in Figure 1) was designed to provide students with a teaching experience which is the culmination of previous field experiences. It serves as a pedagogical capstone where subject matter, professional expertise, and constant evaluation

coalesce to provide each student with the most complete profile of his/her teaching potential available at that point in his/her career. The catalog description for the Curriculum and Instruction 414 course is as follows:

CI 414. PRACTICUM IN STUDENT TEACHING-N-12(12) Full-time classroom instruction in early childhood, elementary, and/or secondary education. Students supervised by University personnel and practicing teachers. Prerequisites: tenth-term standing, C.I. 413, a grade of C or higher in all specified and professional courses.

Again, "successful" completion (grade of C or higher and fulfillment of competencies) of field experiences and methods courses are prerequisites for the Practicum in Student Teaching. The practicums are offered at three centers: central Pennsylvania, Philadelphia, and Pittsburgh. Resident coordinators at each of the centers supervise a cadre of supervisors for student teachers; some of these student teacher supervisors, in turn, are instructors in the educational psychology and foundations courses at these campuses. Such links between the sophomore and senior field experience programs strengthen field components and provide the supervisors with longitudinal observations of prospective teachers' professional growth.

Although oversimplified, the previous materials describe the three field experiences used in the phased teacher education program. Procedures used for its designs and amendments are next presented.

Procedures

Two of the three field experiences (the sophomore and senior) had antecedents which contributed to their present form. The so-

called Preprofessional Term, for example, was the forerunner of the CI 211, Introductory Field Experience for Teacher Preparation. Originally designed for prospective elementary school teachers, the Preprofessional Term was opened to prospective teachers at all levels early in the seventies, but always on a volunteer basis. In the early seventies, Penn State faculty worked with volunteer public school teachers to identify tasks which a sophomore teacher aide might perform but which would not require the mastery of skills and content possessed by, say, a senior teacher aide (Bell & Trueblood, 1972). These tasks were sifted and winnowed over the years to provide a list which practicing teachers in local schools felt might be reasonable and helpful for any prospective teacher, elementary or secondary.

That Preprofessional list was submitted to panels of secondary teachers who were asked to identify items which they felt needed additions, corrections, or amendments. Based upon those recommendations, another list was drafted and pre-tested with a group of secondary teachers from Altoona, Pennsylvania. The Altoona teachers were also asked to make additions, corrections, and amendments to the list. Based upon their recommendations a third list of items was categorized, amended and used with all CI 211 participants, that is, at all campuses where CI 211 was operational. Based upon this expanded testing of the checklist, still another version of it will be drafted and tested until a generally acceptable (80 percent or better) list of items is achieved.

The antecedent to the senior field experience has long been a staple in Penn State's teacher education program, namely, student teaching. Close and detailed supervision of student teachers has been an identifying characteristic of the program. Criteria for judging student teacher effectiveness has followed (and perhaps led) national patterns from judgments along continuums under "personal" and "professional" (Remaley, 1965) categories, through behavioral objectives (Luebke, 1969) to the current competencies (Neuhard, 1979), generic and specialized.

As was the case with the antecedents to the sophomore field experience, a myriad of educational personnel were used to shape each revision of criteria and protocols for student teaching. Classroom teachers, curriculum coordinators, principals and supervisors, superintendents and, more recently, even parents and students have recommended additions, corrections, and amendments to the contents of the PSU Student Teaching Handbook. Recommendations about the contents of that Handbook are based upon competencies developed via sophomore field experiences, generic and specialized teaching competencies as tested in the junior field experiences, and daily classroom and extracurricular experiences developed during students' senior student teaching assignments. While not new, such detailed articulation is somewhat unique.

Understanding the uniqueness of the junior procedures requires a review of Figure 1 (p.23) where the essences of articulation are displayed. Operational verbs for program descriptions in sequence are as follows: C & I 211, observe; C & I 410, analyze; C & I 411,

design; C & I 412, develop; C & I 413, implement (in controlled setting); C & I 414, implement (in classroom settings). Although the 413 and 414 overlap slightly, the distinction between the two is that the 413 situation is that of a leader (tutorials, small groups, program [individualized] writer) whereas the 414 is that of the more typical classroom teacher (large group teaching plus extra-curricular activities). Besides these operational verbs, basic skills (computation, reading, speaking, writing) are constants in all facets of the professional program.

Methods courses, generic and special, evolve from roles and competencies expected of secondary teachers, the etiology of which is described earlier in this monograph (cf. Part I). Excerpts from the program which show the relationship of the generic to the special methods courses for the teaching of science are shown in Figure 3, (p. 75).

To repeat: all of the previous field experiences and articulated courses come to a dress rehearsal before the C&I 414, Student Teaching. Each of the operational verbs--observe, analyze, design, develop--is implemented and evaluated within the C&I 413 and C&I 414 experiences. All academic disciplines (communication, English, foreign language, mathematics, science, social studies) are organized like the Teaching-Secondary-Science model, shown in Figure 2, (p. 75).

As in previous field experiences, all affected personnel have an opportunity to offer additions, corrections, or amendments to the current mode. Some of those suggestions have been used to shape the procedures for the field-experiences which follow.

Evaluation

As indicated previously (pp. 77-78), field-experience performance activities are evaluated by checklist at the sophomore level. But that checklist is augmented with a separate cooperating-teacher checklist and by the more conventional academic testing within the structure of the foundations and educational psychology classes. Data from these sources are factored into general education and basic skills (Phase I) to provide another screening level before the junior methods/field experiences (Phases III/IV).

Successful academic and performance records are prerequisite for students' admission to the Phase III/IV field programs. The combined C&I and discipline (e.g., science, English) courses (see Figure 3, p. 75) must also be passed with C or better grades before students are permitted to take the C&I 413 field experience. Within the field experience, a number of evaluation devices (all of them studied by the students in their methods courses) are used to ascertain students' potential teaching performance. A partial list of such devices would include: Observation Schedule and Record (OSCaR), Social Emotional Climate Index (SECI), Social Substantive Schedule (SSS), and the Pennsylvania Department of Education's Generic Teaching Competencies.

These instruments, too, are used to evaluate prospective teachers' student teaching performance within their capstone course, C&I 414. In that course, the evaluations are multiple; that is they are made by the cooperating teacher, the University supervisor, the area

<u>Major Topic</u>	<u>C & I 412 Objective(s)</u>	<u>Sci Ed 412 Objective(s)</u>
1. Systems Approach to Instruction.	1.1 Describe the functions necessary for any instructional system. 1.2 Describe the components that require integration and coordination for effective science instruction.	1. Use reading level assessment and other diagnostic procedures to assess needs of at least three different students, design an instructional sequence to meet those needs, implement the sequence, and evaluate the effectiveness of the sequence using warranted assertions.
3. Learning Management Strategies	3.1 Design and teach an instructional plan using the laboratory for inquiry. 3.2 Design an instructional plan using the school grounds for discovery. 3.3 Design a 3-week instructional unit which includes a wide variety of learning activities on a narrow science topic.	3. Bring to Sci Ed 412 evaluations of effectiveness, based on data, of various logistical procedures used in science instruction.

Figure 3
 Examples of Articulation
 Among Topics, Generic and Special Methods
 (Teaching Secondary Science: 3, as Model)

coordinator and sometimes the methods instructors. The frequency of observation may vary with the category of the observer; cooperating teachers make almost daily observations (at least early in the ten week experience); supervisors, by definition, must observe each student teacher seven or eight times within the ten week term. In addition, supervisors make weekly visits and work with student teachers during the weekly seminars. A methods professor may see a prospective teacher only once during the student teaching term, but it should be remembered that the methods instructor observed the prospective teacher during his/her C&I 413 experience.

As of the date of this report (1981), the phased program can only be tentatively evaluated. The first group of students to complete the phased program begin their student teaching Winter Term, 1981. But even with the small numbers involved, the phased program, through its field experience, has already shown significant screening effects on those who aspire to teach. General descriptions of these effects include the following: establishing the educational level at which a prospective teacher wishes to teach, providing realistic environments for judgments about the tasks of a teacher, providing alternative careers for those who decide against teaching as a vocation, establishing stronger bonds between schools and the University.

Field experiences in the phased, secondary teacher education program are considered pivotal to its success. Thus far, even the limited evidence collected augurs well for their providing a lasting contribution toward the development of the teaching profession.

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**PROGRAM
EVALUATION**

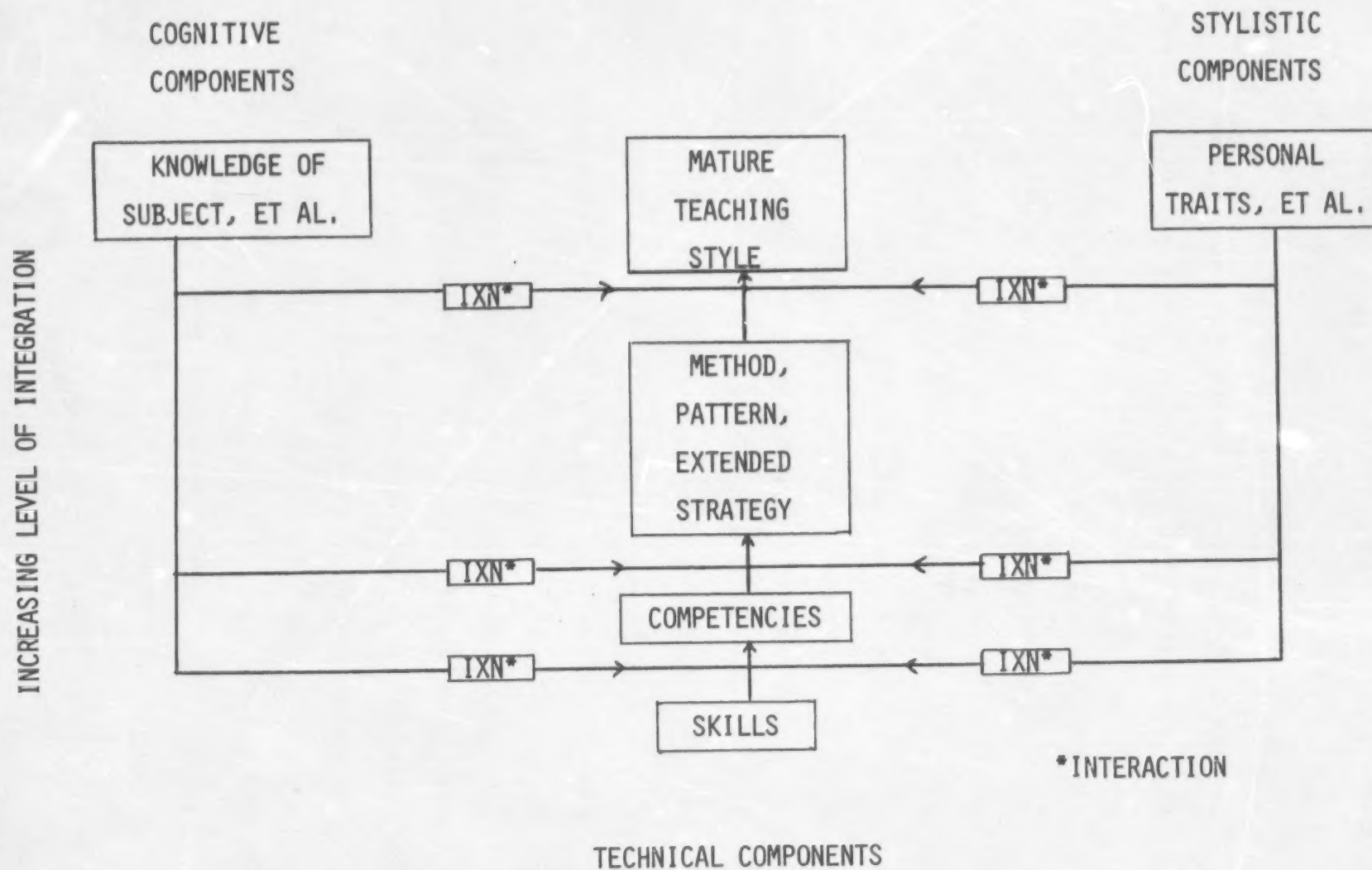
External Evaluation

Matthew Bruce, Temple University

Introduction

The teacher preparation program in secondary education at Penn State is well-conceived and thoroughly planned. While there will almost certainly be changes based on the early experience with this re-designed program, it seems most likely that the changes will be applied to implementation procedures rather than to the basic program framework.

The overall program is competency-based, modular, and articulated both on a time axis and across its various parallel components. Its format is well described in terms of the hierarchical subsumer model of teacher development proposed by Bruce and Miller (1976). In this model, the teacher preparation process involves the development of a substantial number of low level skills and the subsequent integration of these skills into a smaller number of competencies. These competencies are in turn integrated into (subsumed by) a still smaller number of higher order components of the teaching process, such as strategies and methods. At some point in the teacher's development, all of these are subsumed into what becomes that teacher's style of teaching. At all levels of this integrative process, elements from the cognitive and affective areas are drawn into the process, interacting and contributing to the developing repertoire of competencies and higher order capabilities. See Figure 4, page 81.



The pre-service preparation begins this integration process and extends into the lower edge of the development of higher order task capabilities. That is, pre-service teacher education does not develop complete teachers; rather, it produces what Fletcher Watson has termed "apt apprentices," who will in time, it is hoped, develop an acceptable, mature teaching style. Moreover, it is not to be expected that pre-service teacher preparation will provide all the low level skills or develop all the higher order task capabilities that the teacher will ever use. Assuming that the teacher remains intellectually active, skills will be gained and the integration process will continue to produce higher order capabilities throughout the teacher's career. At the outset, however, some critical mass of skills and competencies is necessary--what are referred to in competency-based-teacher-education (CBTE) jargon as entry level competencies--and this defines the domain of pre-service teacher education.

The CI 413 field experience represents a point in the development process prior to student teaching at which skills already acquired in the early program components (CI and Special Methods 410, 411, 412) are practiced and evaluated and the integration of these skills into competencies is begun. It is not student teaching; rather, it is a laboratory exercise associated with the classroom components which have preceded it, and preparatory to student teaching. It is a common experience for all students, building upon common knowledge and skills developed in both common courses and in parallel subject area courses, and utilizing the subject area assignment in the field for practice and evaluation.

A specified set of tasks associated with specific competencies is outlined for the field experience and suggestions are offered for activities in fulfillment of those tasks. Completion of these tasks and satisfactory evaluation is considered as evidence that the competencies with which the tasks are associated have been attained. Evaluation is carried out cooperatively by the University coordinator and the cooperating teacher. Logs and substantial written material serve to document the subjective judgment of coordinator and cooperating teacher regarding task completion.

Site Visits and Interviews

In addition to briefing and debriefing sessions with members of the C&I faculty, two days were spent in site visits and interviews with various individuals concerned with the field experience. Penns Valley High School was visited on October 23, and Altoona Junior and Senior High Schools on October 28, 1980. A total of six cooperating teachers, nine student participants and both University coordinators were interviewed.

The student participants interviewed reflected a range of subject area backgrounds and both sexes. The cooperating teachers interviewed included two who had participated in the summer planning program at the University Park campus.

Observations from Visitations

Differences were noticed between the two sites which were not attributable to the course format, students or coordinators, but which

seemed to stem from characteristics of the two schools. These will be noted in connection with individual observation items.

1. General:

- The student participants seemed generally enthusiastic about the experience, and gave the impression that they expected to profit from it.
- Cooperating teachers seemed generally accepting of what they perceived the program to be. That this perception was in some cases limited or even in error compared to what the University indicated as its design was equally clear. For example, it was clear that some cooperating teachers viewed this activity as one-day-a-week student teaching and based their planning and assessment on this view.
- Written material identifying competencies to be demonstrated and offering suggested activities for this purpose was readily available at both sites.
- There was some general feeling on the part of the cooperating teachers that the tasks suggested were not explicated specifically enough to provide adequate guidance for their planning (i.e., they experienced some difficulty in interpreting the tasks and related activities from CI 413, "Suggested Activities For Competency Development"). This feeling was evidenced also by the student participants. In both cases there was, of course, a range to this expression.

- Some frustration was expressed regarding the evaluation process. This seemed to be both conceptual (and related to their perceptions of what the field experience was about) and mechanical (involving problems with the process). For example, in the former case, the view of the field experience as an abbreviated student teaching seemed to be related to an inability to grasp the notion of evaluating a single competency free of the context of teaching a lesson to a class. In the latter case, the cooperating teachers had some problems with things like the meaning of the term "fully functional" (CI 413, "Mid-term/Final Evaluation") in the limited context of this experience. That is, does the term "fully functional" imply a higher order of expectation by the University than is really intended? And does the term tend to reinforce the perception of CI 413 as student teaching? One co-op suggested a three point scale: inadequate/adequate/more than adequate. Another felt, however, that the term "adequate" would connote someone who would not be hired. This both reflects the importance placed upon the words used and identifies roughly the nature of misperceptions about the performance format and the level of expectation for this experience.
- Student participants at both sites seemed to have a better grasp than did the cooperating teachers at the outset of why they (the students) were there. They understood the integrative aspect of the activity and the preparatory

nature of what they were doing, in concept if not in specific, whereas this was only beginning to register on the cooperating teachers.

- Student participants were somewhat vague about the connection between the generic and subject specific aspects of the methods instruction. For example, one student was quite clear about the Cloze procedure, but had not made any connection with his subject area, seeing Cloze as simply an exercise to be completed.
- Communication presented a problem at both sites. The one-day-a-week format produces some constraints in the form of limited time for discussion between co-op and student with attendant difficulties in planning. The co-ops, like most teachers, have difficulty in projecting exactly where they will be in the sequence of activities a week in advance and thus they encounter some difficulty in fitting in the task planned by the student for the next week. Some are quite flexible about this, but others appeared to find it a struggle. The student participants seemed to be quite flexible about it, to their credit, and the University coordinators both dealt with the results in a mature fashion.
- Record keeping by the University coordinators seemed adequate at both sites. Records maintained in addition to evaluations included "lesson" plans (which were to be returned at the end of the experience), a running checklist of competencies met, a mid-term subjective assessment including a written statement of tasks remaining to be

completed, signed by the student, and a copy of the students' logs. These were not completely consistent between the sites, reflecting a combination of what the program requires and the individual coordinator's judgment regarding what would be useful.

2. Specific To the Individual Sites:

- Cooperating teachers at Penns Valley seemed generally to be the more flexible, less insistent on imposing their own perceptions of what the experience should be upon the student participants' accomplishment of the required tasks.
- Cooperating teachers at Penns Valley expressed a willingness to participate in revising the CI 413 program, although convenience was clearly a criterion and concern was expressed for the possibility of in-service credit being awarded and over whether the school district would cooperate in the process. (This arose voluntarily on the co-ops' part --a function of their proximity to the campus?--and did not enter into the conversations at Altoona.)
- Cooperating teachers at Penns Valley seemed to be developing a sense of what is needed of them in the program (which they seem not to have had at the outset) and of how best to deal with the tasks and suggested activities.
- Some difficulty was apparent in the process of convincing the co-ops of the importance of the small group format for many of the tasks. This was more pronounced at Altoona. Some co-ops felt that this represented too great an imposition on their regular schedule of class activities, and

others commented on the difficulty of planning for it to happen on the day on which the student would be present. Specifically, two of the co-ops at Altoona simply refuse to permit small group work and two others permit only minimal activity of a one-on-one or small group variety.

- Distance over which students were transported to Altoona and the attendant long day is a problem. It was noted that the seminar concurrent with the field experience was held in the van on the way home--not the most productive style.
- Altoona is offered as an "urban" center and is elected by many of the students who plan to do their student teaching in an urban locale such as Philadelphia. As such, it is only minimally reflective of the nature of the true urban school.
- Cooperating teachers at Altoona expressed concern over the expectations of the program which were termed "unrealistic with respect to the actualities of the real classroom." In particular, they expressed concern over the 'plan, implement and evaluate' components of the activities suggested. This concern was voiced most clearly by the teacher who had participated in the summer planning sessions.
- A further assertion by one of the Altoona co-ops, echoed by two student participants, was that the students should concentrate on teaching whole classes "in preparation for student teaching." Who initiated this thought was not entirely

clear, but it appeared to be the co-op, with the idea then being taken up by the students.

3. Miscellaneous:

- Some discrepancies in nomenclature exist between the various forms in use to identify competencies to be developed and tasks to be completed. This has led to some confusion and may be partly responsible for comments on the lack of specificity regarding what is to be accomplished. Both co-ops and student participants indicated having noticed this.
- Some confusion was in evidence over the evaluation form in particular, centering on three things: (1) the non-correspondence of items on the evaluation sheet with the suggested activities list; (2) the evaluation of "tasks involving 1-5 students (Part C.), when in fact some of the classes had afforded little or no opportunity to work with one or a few students; and (3) the five point scale presented for the evaluation, and in particular the adjectives associated with the extremes and the mid-point of the scale. Related to this was a comment to the effect that many of the co-ops do not see all of what the student participants do, and thus the numerical evaluation presents a problem.
- A question was raised by the University coordinators about the "fit" between CI 413 and the preceding 412 class. The suggestion was offered that the first few tasks for 413 be made mandatory (i.e., you must do X, Y, and Z before entering into A through K.) and making these tasks specifically parallel to 412.

- It was suggested by both University coordinators and a number of student participants that some of the co-ops do not see the purpose in some of the tasks assigned to the student participants. That is, they do not see where certain of the tasks have application in "real" teaching situations.

Discussion and Conclusions

In general, the problems, current or potential, in the field experience seem to arise from three conditions: (1) conflict between what certain of the cooperating teachers are willing or able to do, based on their views of what is appropriate in teacher education, and what the basic nature of the University's program leads to in the way of requirements; (2) misunderstanding by either staff or participants of the University's program, either or both conceptually or in specific; and (3) certain mechanical consequences of the format of CI 413, including difficulties with timing and communication, the effects of "normal" disruption of the schools' schedules by assemblies, fire drills, etc., and the necessity to transport student participants over a substantial distance (in the Altoona case).

Of these three areas, only the first seems to represent a potentially serious detriment to the program; the remaining two require some re-education and some fine tuning to the operation. On the assumption that the C&I faculty believe that the program they have assembled is sound in concept and that the role of the CI 413 field experience is a matter of substantial agreement, any significant departure in concept by a program staff member (e.g., a cooperating teacher) represents at least

an irritant, and possibly a source of breakdown in the sequence of developments built into the program, for students with whom that staff member has contact. Certainly, any slippage which occurs in the on-campus portion of the program will be exacerbated by the appearance in the field, "real world" portion of the program of a staff member in active disagreement with the conceptual framework of the program. It generally is not necessary to tell a preservice teacher education student twice that some program requirement is "fine in theory but doesn't work in the real world" in order to have the notion register.

For the students to gain the maximum benefit from the field experience in CI 413, they should understand as fully as possible the role of the course as a part of a professional sequence and, more specifically, what role the requirements to be met during the field experience play in the overall flow of the professional sequence. This suggests that a positive, active effort be made to ensure this understanding. Further, it is important that they understand the limitations on the pre-service professional preparation and what obligations this places upon them as intending professionals in the continuing development that the preservice preparation begins.

A parallel understanding of the role of CI 413 on the part of the cooperating teachers would be helpful, although this may be less necessary than for the student participants so long as the cooperating teachers accept the course expectations and the associated requirements and engage with reasonable enthusiasm in providing the experiences suggested for meeting these requirements. This may necessitate some

"weeding" of cooperating teachers, based on experience with them, and in turn this suggests that some anecdotal information be accumulated by the University site coordinators toward this end. The identification of a "lead teacher" at each site might also be considered. Such an individual might be given adjunct faculty status, thus establishing a responsibility line to the University and the program.

The role of the University on-site coordinator, particularly with respect to ensuring the fulfillment of the role of 413, should be more clearly outlined. With the variations in school situations and individual student assignments, and with the varying degrees of understanding and acceptance of the operational aspects of the course requirements, there will inevitably be unevenness in the students' experiences. The role of the coordinator includes the leveling of these experiences to the end that the competency development process has as high a level of commonality as possible, without constraining individual development beyond that "floor." The competency-based format insists on this. This requires a measure of training.

Since the coordinators, as the position is presently constituted, are at bottom graduate students with an expectation that they will complete their degree programs in some reasonable time period and leave the University for other employment, it follows that a cyclic replacement and training effort be maintained. Maintenance of program continuity is a consideration second in importance only to the well being of the coordinators as students and of the student participants and the pupils in the cooperating schools.

Finally, the offering of an "urban" setting for some students in the CI 413 field experience warrants some discussion. The rationale for this offering follows from the reasons for the field experience itself. Since the field experience is at the same time developmental and preparatory to student teaching, it is a reasonable presumption that a locale providing some of the same characteristics as the projected student teaching locale is desirable. The Altoona site fulfills this condition insofar as it is possible within a plausible distance of the campus. The question must be raised and considered as to whether the benefits provided by use of the Altoona site outweigh the disadvantages stemming from its distance from the campus.

As an "urban" locale, Altoona is at best marginal in its representation of the characteristics of an urban school. It resembles conditions at Penns Valley more nearly than it does conditions in an inner city school. If the purpose of placing 413 students there is to prepare them for urban student teaching, then the benefits may be comparatively small against the cost in time and wear inherent in traveling that distance. The possibility of conference time with the cooperating teachers is reduced, and the concurrent seminar portion of the 413 must inevitably suffer from the pressure. It would appear, then, that the benefits derived from the urban setting must be weighed carefully, taking account of the experience of participants and the center coordinator, and if possible drawing upon the experience of students who go out from this experience to do their teaching in a setting such as Philadelphia.

Recommendations

While the recommendations are probably predictable from the nature of what has gone before, they are summarized here.

It is recommended

1. That a more systematic attempt be made to communicate to the student participants in CI 413 the role of the course in the overall flow of the program.
2. That a more active attempt be made to explicate for the student participants the ties between 413 and the prior components of the program, and between the generic and subject area components of the program.
3. That a more extensive attempt be made to bring the cooperating teachers to understand what the field experience is aimed at, where it fits in the overall program and what their role is in it; that this experience is not student teaching but is preliminary to it; that the experiences required are part of a developmental process, and that the requirements are reasonable and proper with respect to the course expectations; that while variations are inevitable and acceptable in the individual student experiences, it is not appropriate at this time to put their individual "stamp" on the student participants with whom they work.
4. That inconsistencies in nomenclature across written material be corrected, so that everyone gets the same message.

5. That consideration be given to revising the evaluation report to the end of reducing the number of categories into which students can be placed and eliminating the troublesome adjectives such as "fully functioning." Specifically, a three point scale, with descriptors such as "below competency level," "at competency level," and "beyond entry level competence." Assure cooperating teachers that hiring agencies will not see these ratings.
6. That some means of improving communication between cooperating teacher and student participant in the period between weekly attendance days be sought.
7. That consideration be given to the possibility to utilizing a "lead teacher" as a primary contact point with the school and that this teacher be given some form of "status" with the University.
8. That consideration be given to abandoning Altoona as a center for the field experience on the grounds that its disadvantages outweigh its advantages for the one-day-a-week experience.
9. That an effort be made to identify and train incoming center coordinators sufficiently ahead of the point where they take up their responsibilities, to include, if at all possible, some time spent in the school with the outgoing coordinator.

The final recommendation does not stem directly from the observation of the 413 experience, but rather grows out of the conversations with the C&I faculty members about the program as a whole.

10. An effort should be made to trace the threads of developing higher order capabilities from the skills which go into them to the point of entry level competence. A sort of cognitive map of where everything fits would help to answer questions like those by the cooperating teachers about the importance of the 413 experiences, and to clarify the limitations on the 413 experience as a part of a carefully defined whole.

References

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Internal Evaluation

Victor L. Dupuis

As has been described in the earlier part of this monograph, the preparation program for secondary teachers has three major professional components, Axiological, Conceptual, and Pragmatic. Evaluation of these components will be conducted formatively and summatively. The general scheme of the evaluation cycle is depicted in Figure 5, page 98. As the figure indicates, the sources of input to program development have been (a) practicing teachers, (b) professional organizations, (c) professional literature, (d) university professional staff, (e) the Pennsylvania Department of Education, and (f) university and public school administrators and supervisors. Throughout the evaluation period, these sources will be providing evaluation input and also be receiving dissemination data during the formative and summative stages of evaluation.

Design

The evaluation design, Figure 6 (p. 99), displays three major areas for the assessment of the professional preparation components: (1) attainment of expected classroom instructional competencies; (2) analyses of field performance of competencies during axiological, conceptual, and pragmatic program components; and (3) follow-up of job performance during the first two years of teaching. Each of these areas will be assessed during a planned formative stage of evaluation

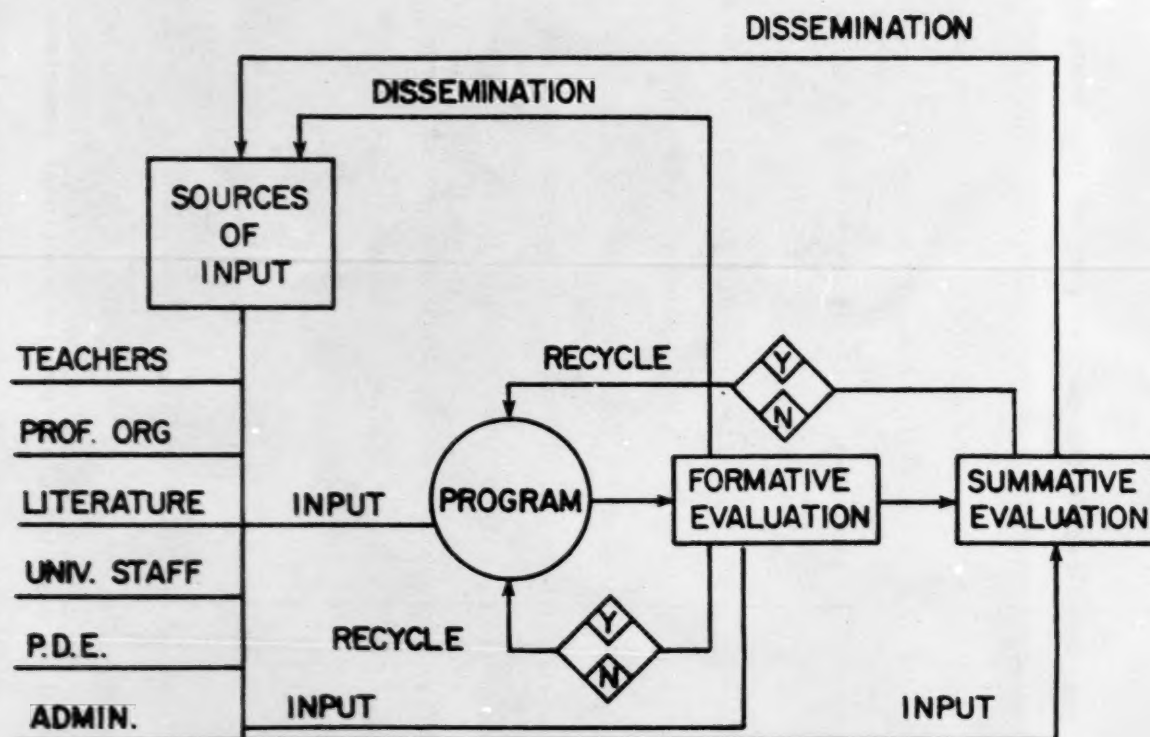


FIGURE 5 GENERAL SCHEMATIC FOR SECONDARY PROGRAM EVALUATION CYCLE

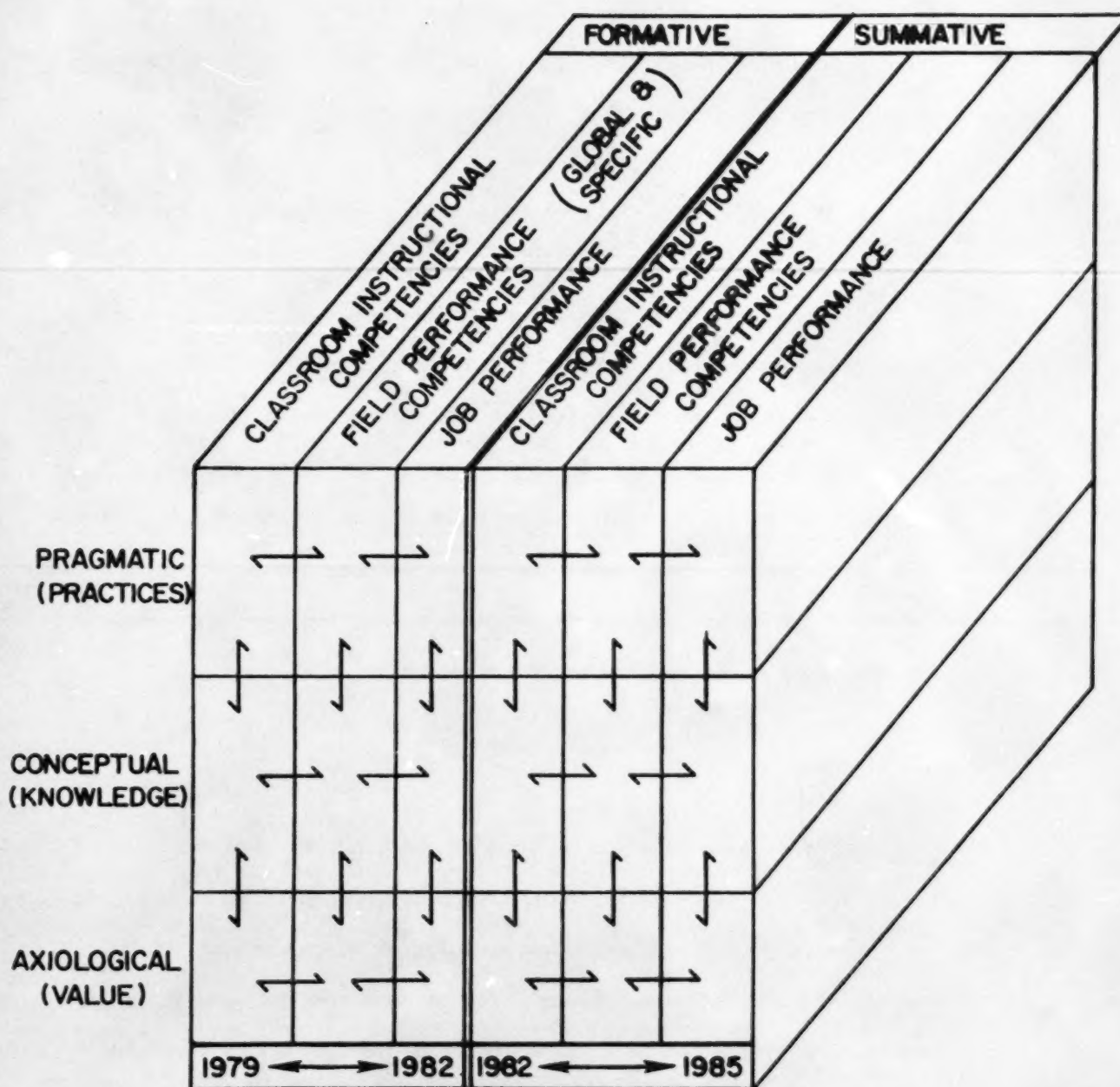


FIGURE 6 DESIGN FOR THE ASSESSMENT OF PROFESSIONAL COMPONENTS FOR SECONDARY PROGRAM

covering academic years 1979-80 to 1981-82. This will cover a minimum of three years of graduates who will have completed the total program. Following assessment, recycling, and revision of program competencies during this period, a summative evaluation will be made during the years 1982-83 to 1985-86.

Since all students in the program will be used for data gathering, the evaluation study will be treated as a total population analysis. Thus, all findings will be generalized to the total Penn State secondary teacher training program. Data to be gathered in all phases include: (1) program attitudinal perceptions of teacher trainees, cooperating teachers, university teachers and supervisors, and school districts employing graduates; (2) cognitive performances of prospective teachers in formal classroom experiences, and (3) field assessments of competency performance during pre-service experiences and during program graduates first two years of on-the-job experiences.

Data Collection

Following is a description of some of the kinds of data to be gathered for each of the three major areas of the professional program:

1. Classroom Instructional Competencies -- since each of the professional components has apriori program competencies, the evaluation scheme will monitor and record the attainment of those competencies for each teacher candidate. These data will serve as comparative performance information for the field and job performance assessments to be made during the three field experiences identified for the program. Of particular concern here is the interaction between the generic

methods preparation and the special methods during the junior year three term sequence. Since the professional program has been developed for sequential growth, i.e., (sophomore, junior, and senior experiences), the interaction of those three components will also be assessed. As indicated earlier in the monograph, the program description calls for learning transfer and application of competencies to complement the generic and special subject methods. Such formative evaluation will provide data for the refinement of many competencies and the elimination of previously expected competencies which do not warrant measurement or effort during a pre-service preparation program. Pre-service preparation is not intended to prepare a teacher for life. Rather, it is intended to provide the neophyte teacher with a basic set of skilled competencies which prepares him or her to be effective operationally in the classroom. Initial assessment of these competencies will be made by the University teachers.

II. Field Performance Competencies -- Competencies for this area will be assessed from at least three perspectives. First, there will be a global assessment made during the student teaching practicum. Since evaluation concerns were addressed during the conception and building of the program, evaluation data for the overall (global) competencies of the program (37 global goals or aims) were obtained from cooperating teachers and University supervisors who had worked with those teacher candidates. These data have provided baseline information from which to assess the success of the new-program. Similar data on graduates of 1981 and 1982 are being gathered for comparison purposes.

Data on specific classroom competencies which were gathered earlier (as described above) will be assessed during the field performance area of evaluation. In particular, the evaluation tools will measure how well the specific competencies demonstrated in the classroom are demonstrated in each of the three field-component areas of the program. Again, since the program has been designed for sequential development, the interaction of the three field component areas will be examined. Assessment of the performance of these competencies will be done by cooperating teachers and university supervisors. Their assessment will be compared with the classroom assessments made by the university teachers.

III. Job Performance -- Following teacher candidates' completion of the formal preparation program, their performance on the job will be assessed for a two year period by the employing school districts. Since this is a mandatory requirement in Pennsylvania (and in most other states), the preparing institution will cooperate with the employing school districts in making this assessment. Basically, three areas of evaluation will be conducted. First, newly licensed graduates of the program will be asked to provide their perceptions of how well and how useful specific competencies were developed, and to what degree these competencies are being used in practice. Second, the school district evaluator of those new teachers (principal, supervisor or whomever) will be asked to rate the teachers' competencies in relation to a list of competencies purported to have been addressed and attained during the preparation program. This same district evaluator will also be asked to indicate the degree to which these competencies are practiced.

Third, the school district evaluator will be asked to make overall assessments as to the teachers' degree of professional worth. In other words, evaluation procedures are designed to find out just "how good" the new teacher preparation program is as perceived by the school districts employing graduates of the program.

Although not designed as a part of the evaluation, student progress through the program is intended to be computer managed for record purposes. These data will be kept on tape with separate entries for each competency for the classroom and field performances areas. Such data by 1985-86, will provide a six-year base for the assessment of all program competencies. From such a data base, longitudinal effects of the new program have the potential for providing a national model for new directions in secondary teacher education.

EPILOGUE

Charting the Future

Although The Pennsylvania State University will replace the term with the semester system beginning in the Fall of 1983, the previously described secondary teacher education program will not be drastically changed. Fine tuning of time elements will be necessary--particularly the field experiences--but there are modifications which will accommodate the new time frame without damaging the concept or the outcomes of the programs.

Once these semester modifications are regularized, the new secondary program will be expanded to include elementary programs within the College of Education and other secondary programs throughout the University, that is, Music, Art, Physical Education, and Agriculture. If the new program is adopted as a model by the Pennsylvania Department of Education (PDE) it may indeed serve as a blueprint not only for Commonwealth Teacher Education programs but also as a national model--possibly a blend of the B.O. Smith proposals and the "new directions" Trump proposed so long ago.

Ultimately, the program will provide a computer-generated profile of each prospective teacher from the time that person enters the program until that person completes his or her first year of teaching. Into that profile will go each prospective teacher's performance on basic skills assessments, grade-point-average, competencies attained and the quality achieved within such competencies not only in the total academic, general, professional education program, and field

experiences but also during the prospective teacher's first year position as a teacher. Input for the on-the-job assessment will come from the first year teacher's students, colleagues, and administrators with further assessments made by college supervisors who will randomly choose some teacher graduates from the program for more intensive study.

Some of these data (undergraduate profile, for example) might be used by the prospective teacher to enhance employment opportunities by providing prospective employers with a computer-generated display of his or her skills and competencies and their quality level. Such a computer printout could be miniaturized and serve as a supplement or substitute for the typically bland résumé. Details provided by computer printouts should do much to insure that only the most qualified teachers will be found in secondary classrooms and that fact would make the committee's efforts to draft a new design for secondary teacher education immensely gratifying.